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Oceans and the law of the sea

A regular process for the global reporting and assessment of the state of the marine environment: proposals on modalities

Report of the Secretary-General*

Summary

The present report provides an overview of the main developments concerning the establishment of a regular process for the assessment of the state of the marine environment that would build on ongoing assessments. The focus is on steps to be taken to prepare the necessary arrangements for such a process. The report is submitted in response to paragraph 45 of General Assembly resolution 57/141 of 12 December 2002, in which the Assembly requested the Secretary-General to prepare proposals on modalities for a regular process for the global reporting and assessment of the state of the marine environment, drawing, inter alia, upon the work of the United Nations Environment Programme pursuant to Governing Council decision 21/13 of February 2001, and taking into account the recently completed review by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, and to submit the proposals to the Assembly at the current session. The aim of the report is twofold: (a) to provide States with a review of the available information and work done on the global marine assessment (GMA) and (b) to facilitate discussions on the establishment of a regular process for the assessment of the state of the marine environment among all stakeholders. The report also raises issues which would need to be addressed for an effective process to be relevant and fully functional. The present report contains information on both the origins of the

* The present report was submitted after the established deadline to reflect the results of the inter-agency meeting held at the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization in Paris on 8 and 9 September 2003.

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proposal for the GMA and on other environmental assessments. The report also reflects some of the discussions on the GMA at an inter-agency consultative meeting held at the headquarters of the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization in Paris on 8 and 9 September 2003.

Contents

		Paragraphs	Page
I.	Introduction	1–3	4
II.	Background	4–19	4
	A. Marine environment assessment: a definition	6–7	5
	B. Legal framework for the establishment of a regular marine environment assessment process	8–14	5
	C. Steps towards the establishment of a GMA process	15–16	7
	D. Existing global and regional assessment programmes	17–18	8
	Differences between the envisaged GMA process and existing assessments	19–20	8
III.	Replies to the request for proposals on modalities	21–23	9
IV.	Issues to be considered with regard to the establishment of a GMA process and steps towards its establishment	24–49	10
	A. Issues to be considered	24–44	10
	1. Scope	25	10
	2. General framework	26–31	11
	3. Outline for the process	32–35	12
	4. Peer review	36	12
	5. Secretariat or institutional arrangements	37–38	12
	6. Capacity-building	39	13
	7. Funding	40–44	13
	B. Steps towards the establishment of the GMA	45–48	14
	C. Steps to be taken by international organizations	49	15
V.	Conclusions	50	16
Annexes			
I.	Existing assessment programmes		19
II.	Summary of replies on proposals on modalities for the GMA		30
III.	GESAMP proposal for a GMA process		48
IV.	UNEP GMA modular partnership approach		49

I. Introduction

1. At its fifty-seventh session, the General Assembly, in paragraph 45 of its resolution 57/141[1] of 12 December 2002, requested the Secretary-General, in close collaboration with Member States, relevant organizations and agencies and programmes of the United Nations system, namely, the United Nations Environment Programme, the Intergovernmental Oceanographic Commission, the Food and Agriculture Organization of the United Nations, the International Maritime Organization, the World Health Organization, the International Atomic Energy Agency, the World Meteorological Organization and the secretariat of the Convention on Biological Diversity, other competent intergovernmental organizations and relevant non-governmental organizations, to prepare proposals on modalities for a regular process for the global reporting and assessment of the state of the marine environment, drawing, inter alia, upon the work of the United Nations Environment Programme pursuant to Governing Council decision 21/13, and taking into account the recently completed review by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, and to submit those proposals to the General Assembly at its fifty-eighth session for its consideration and decision, including on the convening of a possible intergovernmental meeting.

2. Pursuant to the above resolution, the Division for Ocean Affairs and the Law of the Sea of the United Nations Office of Legal Affairs addressed letters to Member States, all relevant international organizations, agencies and programmes, particularly those specifically mentioned in the resolution, non-United Nations global and regional intergovernmental organizations and non-governmental organizations, soliciting proposals on modalities for a regular process for the global reporting and assessment of the state of the marine environment, including socio-economic aspects. Communications have been received from a total of 46 sources (see annex II to the present report for a summary of the replies received).

3. This report also reflects some of the discussions on the global marine assessment (GMA) at an inter-agency consultative meeting held at the headquarters of the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris on 8 and 9 September 2003.[2]

II. Background

4. "If it were not for the sea, the Earth would just be one more small, dead planet, another island adrift in the limitless black ocean of space."[3] But the state of the world's oceans and seas is deteriorating. Progress achieved in reducing harm to the marine environment in some areas is continually being outstripped by the pace and scale of the deterioration. The successful management of the marine environment imposes very different challenges from that of the terrestrial environment. The oceans are physically contiguous and do not have evident visual surface indicators reflecting their environmental state which could be used to aid policy makers in their national and international efforts to conserve, protect and use the marine resources in a sustainable manner. While some individual States and regional organizations have conducted marine environmental assessments, what is lacking is a "regular" global overview bringing the various regional assessments together, based on science and responding to the needs of policy makers for reliable

information about the state of the global marine environment that would allow them to take necessary and timely action.[4]

5. There is a dawning realization that neither the sectoral problems nor the more general crisis that affect the oceans can be dealt with in isolation. They are intricately interlinked both with themselves and with social and economic development on land. Policy decisions, research and management programmes are all taking a more integrated approach. The relationship between scientifically sound marine environment assessments and informed decisions for better management, protection and preservation of the marine environment is evident. Regular assessments are increasingly necessary in view of the transboundary nature of some of the problems impacting the economic and social well-being of populations. This is why States have decided that there is a need for a new form of integrated assessment that is global in scope; comprehensive in the issues it covers; regular, permanent; utilizing and integrating all existing assessments, and with an emphasis on the socio-economic causes and consequences of the degradation of the marine environment.

A. Marine environment assessment: a definition

6. In its "Guidelines for Marine Environment Assessments",[5] the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)[6] provides a definition of marine environmental assessment as "the collection, analysis and interpretation of information with the purpose of assessing the quality of marine areas". It adds that this is *not* the classical environmental impact assessment, which is carried out to study the effects of a proposed development on the environment. Rather, it is a comprehensive process comprising the collection of reliable physical, chemical and biological information to assess the impact of human activities against a background of spatial and temporal variability.

7. These assessments are important because they can provide a scientific basis and rationale for policy, integrated management planning and the sustainable development of coastal and marine areas.[7] Assessment reports are documents synthesizing information, presenting findings and making recommendations for action for future work. They can be used in forming opinions about the *quality* of the environment concerned, and in this context, the most useful information will be that relating to changes in the natural features of the environment and the consequences of those changes.

B. Legal framework for the establishment of a regular marine environment assessment process

8. **The 1982 United Nations Convention on the Law of the Sea (UNCLOS).** The United Nations Conference on the Human Environment (Stockholm, 1972) in its recommendations on marine pollution recognized the inadequacies of the existing regimes and underlined the need for a more comprehensive approach to the protection of the marine environment from all forms of degradation. The provisions of UNCLOS, in particular those contained in Part XII, represent the first attempt to create a general framework for a legal regime that establishes on a global basis the obligations, responsibilities and powers of States in all matters of marine

environmental protection. The Convention serves as a unifying framework for a growing number of more detailed international agreements on marine environmental protection and the utilization, conservation and management of marine resources. It provides for a dynamic interaction with those agreements by calling upon all States to harmonize national measures, elaborate global and regional rules, and periodically re-examine this body of law as necessary. Article 192 of UNCLOS establishes that States are under an obligation to protect and preserve the marine environment. This comprehensive fundamental obligation embodies a radical change from the piecemeal approach previously applied to the protection and preservation of the marine environment.

9. In article 200, States have undertaken to participate actively in regional and global programmes to assess the nature and extent of marine pollution or degradation of the marine environment. In relation to capacity-building, article 202 (c) recognizes the need for assistance to developing States in the preparation of environmental assessments. Articles 204 to 206 on monitoring and environmental assessment call upon States to endeavour "to observe, measure, evaluate and analyse, by recognized scientific methods", the risks or effects of degradation of the marine environment. The integration in article 193 of sovereign rights over natural resources with the duty to protect the environment is a precursor of the concept of sustainable development.[8]

10. **UNCLOS Part XIII** on "Marine scientific research" represents the recognition that science is at the basis of the knowledge about the marine environment and that States should cooperate in the conducting of marine scientific research.

11. **Agenda 21, chapter 17.** The 1992 United Nations Conference on Environment and Development (UNCED) further developed the regime for the protection and preservation of the marine environment, building upon UNCLOS. Chapter 17 of Agenda 21 deals with "Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources". Paragraph 17.1 of Chapter 17 reaffirms that the 1982 Convention "sets forth rights and obligations of States and provides the international basis upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources." Important principles have emanated from UNCED,[9] in particular, the now widely recognized principle of the precautionary approach. The ecosystem approach to the sustainable use of the environment and its resources, implicit in UNCLOS, and articulated throughout Agenda 21, offers a rational basis for assessing the effects of activities on the marine environment and the way they interact with other activities.

12. Chapter 17 introduced new terminology: the term "degradation" was substituted for the term "pollution". Degradation is considered to include all deleterious effects resulting from anthropogenic modification of the physical, chemical or biological characteristics of the environment, as well as environmental impacts of technology (see A/49/631, para. 75). Chapter 17 recognizes that in order to achieve the goal of the protection and preservation of the marine environment, States have to apply preventive, precautionary and anticipatory approaches; to ensure prior assessment of activities that may have significant adverse impacts upon the marine environment; to integrate protection of the marine environment into relevant general environmental, social and economic development policies; to develop economic incentives to apply clean technologies and other means consistent

with the internalization of environmental costs, such as the polluter-pays principle, so as to avoid degradation of the marine environment; and to improve the living standards of coastal populations, particularly in developing countries, so as to contribute to reducing the degradation of the coastal and marine environment (para. 17.22).

13. **Global and regional organizations and instruments.** A number of treaties and other instruments adopted both before and after the adoption of UNCLOS provide for the conduct of marine assessments, thereby contributing to the legal framework for the GMA. For example, the 1971 Ramsar Convention on Wetlands of International Importance requires some assessment to be made for States to designate Wetlands.[10] In addition, the Jakarta Mandate on Marine and Coastal Biodiversity, adopted by the Second Conference of the Parties to the Convention on Biological Diversity, in 1995, focuses on marine and coastal protected areas, the development of guidance on integrated marine and coastal area management, and methodologies for the rapid assessment of marine and coastal biological diversity. Furthermore, a number of international organizations, agencies and programmes such as FAO and UNEP have mandates deriving from various conventions providing for scientific research, exchange of information or some form of marine assessments.

14. Regional instruments and programmes also constitute an important element in the global framework for marine environmental assessments. These include the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention), the Regional Seas Programme of UNEP, the Antarctic Treaty System, the assessment activities in the Arctic and the regional fisheries agreements.

C. Steps towards the establishment of a GMA process

15. In 1999, the process of investigating the potential establishment of a regular global marine environment assessment to provide accurate information to decision makers on the threats to the marine environment was initiated by national governments at the seventh session of the Commission on Sustainable Development under the leadership of Iceland. A further Icelandic initiative at UNEP in 2001[11] led to a number of developments, including: (a) the convening by UNEP of intergovernmental meetings in Reykjavik to consider the feasibility of a GMA and in Bremen to consider the modalities for its operations;[12] (b) intergovernmental meetings on the GMA such as the Informal Consultative Process meetings, the World Summit on Sustainable Development and the discussions at the fifty-seventh session of the United Nations General Assembly in implementation of paragraph 36 (b) and (c) of the Johannesburg Plan of Implementation,[13] adopted by the Summit. At the World Summit on Sustainable Development (26 August-4 September 2002), States had decided to seek the establishment of the GMA under the United Nations. That decision was subsequently endorsed by the General Assembly in paragraph 45 of its resolution 57/141.

16. Furthermore, in response to UNEP Governing Council decision 21/13 of 9 February 2001, entitled "Global assessment of the state of the marine environment", a publication entitled "A Survey of Global and Regional Marine

Environmental Assessments and Related Scientific Activities" was issued in 2003 by UNEP-World Conservation Monitoring Centre (WCMC)/UNESCO-IOC and presented as a contribution to the GMA process under the United Nations. The conclusions and recommendations drawn from the survey provide valuable guidelines for the establishment of a GMA mechanism.[14]

D. Existing global and regional assessment programmes

17. Although the above-mentioned survey reveals that no single existing assessment or a combination of all existing assessments corresponds to the criteria States have proposed for the GMA, useful information can be gleaned from a consideration of current assessments. There are two types of existing assessment programmes deserving particular attention: global assessment programmes, either with a section on the marine environment or dealing with a specific aspect of the marine environment; and regional assessments of the state of the marine environment. Some of the most relevant of these programmes and the mechanisms supporting their implementation are associated with UNEP. Selected information on global programmes such as the Global Environment Outlook (GEO), the Global International Waters Assessment (GIWA), GESAMP, the Global Ocean Observing System (GOOS), the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA), the International Coral Reef Action Network (ICRAN), the Millennium Ecosystem Assessment (MA), the United Nations Atlas of the Oceans, the Intergovernmental Panel on Climate Change (IPCC) and regional programmes, namely the Organization for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), the Baltic Marine Environment Protection Commission (HELCOM), regional seas programmes and regional fisheries bodies are described for information in annex I to the present report.

18. Furthermore, it is important to note that many national and regional assessments need to be improved and harmonized in order to contribute to the GMA. In its proposal for modalities, GESAMP emphasized that its experience has shown that existing national and regional assessments generally lack sufficient data and comparability for the purpose of a global synthesis. However, capacity-building and a continuous revision process under the GMA is expected to remedy this problem.

Differences between the envisaged GMA process and existing assessments

19. None of the existing assessments can achieve what States expect from the global marine assessment because they are neither sufficiently comprehensive, nor regular, nor exclusively focused on the marine environment. The differences between the existing global assessments and the GMA process can be described briefly in the following categories:

(a) Existing global assessments do not focus specifically on the marine environment and only one is made with regularity. Although the Global Environmental Outlook was designed to be regular, it is broad in scope and covers all elements of the environment: land, air, water and biodiversity, devoting only limited attention to the oceans. The Millennium Ecosystem Assessment is similarly broad in scope, is not focused on the oceans and is a single event, destined to be completed in 2005. The Global International Water Assessment is likewise a single

event, and is due to be completed in 2003. GIWA does not focus exclusively on the marine environment, but also covers the status of global freshwater resources;

(b) Other global programmes are sectoral or thematic, covering one issue such as climate change (IPCC), the conservation and protection of coral reefs (ICRAN) or the mitigation of impacts on the marine environment from land-based activities (GPA);

(c) Regional marine assessments such as those of OSPAR, HELCOM and the regional seas programmes are limited geographically to specific areas and are not integrated into a global whole. Furthermore, they may focus on different aspects of the environment and are variable in quality;

(d) Fisheries assessments are usually limited to specific areas or to individual species and do not take into account the relationship of the fish stocks to the environment as a whole or to other activities in the oceans;

(e) As for other programmes, the Global Ocean Observing System only collects data, while the United Nations Atlas of the Oceans provides information on the oceans; neither carries out assessments.

20. Two existing global assessments, MA and GIWA, are non-recurrent and are undertaken as a single event, providing snapshots of the status of a certain area or an aspect of the marine environment, and are not able to show trends or changes over time which are essential elements of a future GMA. Although GEO is continuous, it covers the marine environment only briefly, as a small part of an assessment of all aspects of the environment. Other assessments are limited in theme and/or geographic area. In contrast, the GMA is meant to be global in geographic scope, comprehensive in the issues it covers, regular (no limit in time) and dedicated specifically to the state of the marine environment. It would take an ecosystem approach, assessing the interrelationship of all aspects of the environment and of all activities in the sea. Despite their limitations, all existing assessment programmes, whether global, regional, thematic or sectoral, could contribute material to the GMA. Furthermore, as they contain valuable experience on conducting assessments and on how to manage relationships with stakeholders, they could provide models of possible organizational structures. Thus, existing assessments represent a pool of relevant experience and information.

III. Replies to the request for proposals on modalities

21. As noted above, in response to the request contained in General Assembly resolution 57/141, the Division for Ocean Affairs and the Law of the Sea solicited proposals on modalities for the GMA and received 46 replies. Although some replies did present detailed proposals, it was suggested that States required more information on the GMA to be in a position to make a substantive response.[15] The majority of respondents simply recalled the conclusions/recommendations adopted at the Reykjavik and Bremen meetings. Respondents, including international organizations, expressed their support for the establishment of the GMA mechanism and committed themselves to contribute to it in accordance with their mandate and according to their capacity and the availability of resources. It was emphasized that the GMA process should build on existing assessment mechanisms, which were varied in their scope and diverse in their thematic mandate.

22. The issue of capacity-building, particularly in relation to data gathering and availability and ocean governance, was also raised with some consistency, while the issue of financing the GMA remains to be fully discussed. Some respondents insisted that the GMA process should make best use of existing resources within international organizations and that the GMA process should not overburden financially the already strained United Nations system.

23. GESAMP was highlighted as the only United Nations inter-agency mechanism with relevant experience in carrying out assessments, with internationally recognized scientific high standing and with a real capacity to take the lead role of the scientific aspects of a GMA mechanism, subject to a successful organization of its structure and modus operandi. In its contribution to this report, GESAMP presented a modification of the proposal for a GMA mechanism developed at the Bremen meeting.[16] The GESAMP proposal, as well as one introduced by UNEP,[17] are reflected in annexes III and IV to the present report. Details of replies on proposals for modalities are contained in annex II.

IV. Issues to be considered with regard to the establishment of a GMA process and steps towards its establishment

A. Issues to be considered

24. The GMA is to be global, comprehensive and regular. These three features distinguish it from existing assessments and will require a process and structure of considerable complexity. Indications of issues to be considered and proposals for steps forward developed in consultation with interested agencies and organizations are presented below. The GMA will build on existing assessments, institutions and procedures and will require the continuous participation and active collaboration of States, global and regional organizations, non-governmental organizations and the scientific community. The main issues to be considered with regard to the establishment of a GMA mechanism are: scope, general framework, outline for the process, peer review, secretariat, capacity-building and sources of funding.

1. Scope

25. The scope of the GMA is understood to be global and comprehensive: it will cover all regions of the world and all issues relating to the marine environment. Assessments would be regular and carried out every five to 10 years, subject to periodic review. There could be both general and thematic assessments. The general assessment should begin at a basic level to ensure the involvement of all interested parties. As capacity is developed in all countries and regions, the general assessment could increase in complexity and depth. In addition, thematic assessments would focus on specific issues of interest to many States. Assessments would apply the ecosystem approach, examining the relationship between various human activities and elements of the ecosystem. Assessments would also include socio-economic aspects in relation to both the causes and the consequences of the state of the environment, that is, the causes of environmental degradation and its consequences for human beings.

2. General framework

26. The overall political oversight would be conducted by the General Assembly possibly through a subsidiary process that could meet in conjunction with the Informal Consultative Process. This would avoid the creation of a new organization and would be cost-effective. It would also ensure the participation of all organizations on an equal footing. The process itself would build upon existing procedures and assessments.

27. As an initial consideration, the General Assembly would choose between a centralized or a regional structure. Under a centralized structure, material would be provided individually by States, global and regional intergovernmental organizations and non-governmental organizations (environmental and industrial) to a global scientific panel for analysis and synthesis. Under the regional structure, the regions would develop their own assessments for contribution to the global scientific panel for analysis and synthesis. Although the second option would be more complex, time-consuming and expensive, it would be more useful both for capacity-building and for ultimate use, as many policy decisions on measures to improve the environment will be made at the regional and national levels. If the decision were to opt for a regional structure, regional boundaries specific to the GMA would have to be determined. There are many existing definitions of regions used for different purposes that would have to be examined by a group of experts, including States, to determine which are most appropriate for the GMA. These include regional fisheries organizations, large marine ecosystems, regional seas programmes, etc.

28. Some regions such as the OSPAR region are already well organized and are already producing assessments. Others would have to organize themselves with the relevant assistance from global and other regional organizations.

29. A second major initial consideration is the structure of the assessment. Two aspects of the assessment can be distinguished: the underlying scientific facts and the policy conclusions to be drawn from these facts. The Reykjavik and Bremen workshops stressed the importance of keeping these two strands separate.

30. To ensure the separate treatment of the factual and policy conclusions, it is essential to plan for a two-step process from the start, with policy considerations only relevant to a decision on thematic assessments in the initial consultations and to the conclusions to be drawn from the scientific assessment as to measures to be taken to address any problem. Without this strong separation, there will be a temptation to bring the policy conclusions into the discussion of the scientific facts.

31. This approach would therefore require: (a) at regional level, first a scientific process concluding, after a peer review, in the adoption of a statement on the factual conclusions of the assessment and, second, a policy meeting to endorse those scientific conclusions and adopt the consequent policy conclusions; (b) at the global level, first, the adoption by a global scientific panel of an entirely factual scientific assessment report and, second, a subsequent political process under the General Assembly open to all States and with the participation of other interested observer groups, for the endorsement of the factual scientific conclusions and the discussion and adoption of the consequent policy conclusions.

3. Outline for the process

32. Three outline models for the GMA process have been proposed thus far: the Bremen model; the GESAMP proposal, which is a modification of the Bremen one (see annex III) and the UNEP "GMA modular partnership approach" (see annex IV).

33. Due to the logic of its step-by-step structure, its clear separation of science and policy and its provision for consultations among all interested parties at the outset, the model proposed by GESAMP appears to be the most compelling, regardless of whether GESAMP participates in the process. It is important to note that in its proposal, GESAMP suggested that it could provide scientific leadership only in the global scientific panel, not in any other part of the process. (See annex I, paras. 10-13, for details on the GESAMP diagram.)

34. This model introduces constructive changes to the Bremen design for a GMA mechanism and aims at ensuring legitimacy, relevance and independence of the scientific process. Phase I would begin with "a global stakeholders forum", a consultative meeting of all interested parties, to discuss the issues, followed by a global design for the GMA prepared by a scientific panel. Phase II, the regional phase, would ensure the effective participation of regional stakeholders through meetings convened to adapt the global design to regional requirements and capabilities, to be followed by separate regional scientific assessments. In phase III, the regional and sectoral assessments would be synthesized by the global scientific panel into an integrated global marine assessment. This global scientific report would then be discussed in a global policy forum. A significant characteristic of this model is that it ensures the independence of the scientific process by providing for regional policy reviews to be fed into the global policy review instead of into the regional scientific assessment, thus maintaining the integrity of the scientific report.

35. The involvement of all interested parties is crucial: States, international organizations and non-governmental organizations as providers of information and users of assessments; the scientific community as providers of information, as members of the scientific panels, for peer review and as users of the assessments. It is important for States to be involved at the outset, before the development of the scientific design, to enable them to indicate which issues most interest them, both globally and regionally, and to make commitments on the part they could play.

4. Peer review

36. Peer review is essential for scientific credibility. The scientific assessment should be reviewed by scientific experts in marine assessments, perhaps drawn from the competent scientific organizations or from those having conducted regional assessments.

5. Secretariat or institutional arrangements

37. A secretariat for the GMA could be based on the IPCC model, which provides for a small unit of two to three professionals and three support staff. The IOC proposal is for even fewer staff (see annex II, paras. 19-22). However, while IPCC merely analyses already published studies on the single subject of climate change, the GMA is expected to analyse and synthesize material on a broad range of subjects related to the state of the marine environment, acquired from or contributed by a broad range of sources. For a project of such magnitude as the GMA, a small staff

might not adequately respond to the considerable volume of work that would be required to collect, manage and coordinate the information to be received from various sources and to be transmitted to the global scientific panel. Therefore, several professionals with a scientific background and a similar number of support staff would appear to be required. OSPAR commented that its entire complement of five professionals and seven support staff were required to produce its Quality Status Report.

38. There are two options for the location of the secretariat: within an existing international United Nations organization, or in a State, as a free-standing unit or attached to a government department. While location in a State could bring financial advantages if the State provided funding, it could affect the perception of the independence of the assessment. On the other hand, location in an international organization would offer built-in infrastructure and linkages to other organizations, ensuring that the secretariat would be provided not only with a set of offices and meeting rooms, but also with all the necessary equipment, including computers, high-tech means of communication and networking, conference rooms, translation facilities, etc. It could also provide linkage to related organizations. Personnel could be provided from States, international organizations, non-governmental organizations or outside recruitment or a combination thereof.

6. Capacity-building

39. Capacity-building is an essential aspect of the GMA and one of its functions. Technical assistance could be provided directly by the relevant organizations during the initial assessment process at the national and regional levels. The process will inevitably undergo a comprehensive review of its conclusions to determine what improvements have to be made to prepare for the next round of assessments. It is expected that the ability to perform assessments would improve continuously as the process continues. While capacity-building would be an essential and important aspect of the GMA, it would require special arrangements, separate from the work of the global scientific panel, and would probably be organized on a regional basis.

7. Funding

40. Funding is a key issue, as the GMA funding requirement could be very significant. In addition, it is important to bear in mind the separation between the preparatory or initial costs from the operational costs of the GMA process once it is established. At this early stage it would not be possible to calculate the contributions of organizations as well as other costs which would depend on how the GMA process is established.

41. As a basic premise, the GMA would build upon existing resources through the refocusing of existing programmes. However, additional funds would still be required for preparatory meetings, the regional process, processing and assessing information at the global scientific level, their assessment and for the secretariat. The Global Environment Facility (GEF) could be approached to assist in funding the preparatory meetings.

42. Dedicated organizational funds and external sources are the primary means of finance for most assessments. Therefore, a considerable portion of the funding for the GMA could come from the redirection of funds for certain existing assessments. With respect to financing the additional elements of the GMA, such as the

secretariat and the global scientific panel, an appropriate model might be the trust funds established in support of the various global assessments including IPCC as well as the operations of the Regional Seas Programme. A GMA trust fund could include annual contributions of States, cash contributions from United Nations agencies, other voluntary cash contributions and possibly grants from the World Bank or the GEF to assist capacity-building in developing countries. Furthermore, contributions in kind would be made by specialized agencies or programmes which would contribute components of the main GMA report by preparing their own sub-reports and reviewing sub-reports from other sources.

43. For information, IOC has estimated that its participation as the lead agency for the GMA would entail an expenditure of US$ 8 million for a five-year process.[18] This would include the cost of a secretariat (1 P-5, 1 P-3 and 1 G-4), 30 regional assessment groups/meetings and the production of a global report in six languages. With parallel thematic assessments carried out by scientific working groups, this minimum cost would increase to about $9.2 million. At the inter-agency consultative meeting, IOC explained that this was an absolute minimum amount for a very basic assessment.

44. However, as mentioned above, the GMA secretariat would need to be proportionate to the tasks to be undertaken. Furthermore, the GMA is envisaged as a regular endeavour with reports provisionally set for every five years. Therefore, it would seem that the models provided by other assessments might be more appropriate, such as MA, at a cost of $21 million for a four-year effort, and GIWA, which costs $13 million for a single 49-month project. However, a more accurate figure would depend upon how much of the work was done in self-funded regional or sectoral assessments.

B. Steps towards the establishment of the GMA

45. In order to prepare for the GMA, the General Assembly is invited to take two sets of decisions: first, decisions regarding the policy options set out in section A above; and second, decisions regarding steps to be taken in 2004 to establish the GMA, set out in paragraph 47 below.

46. The immediate questions resulting from a consideration of the issues in section A are the following:

(a) Whether the GMA process should comprise a centralized structure wherein all inputs are sent directly to the global scientific panel by all interested parties, including both global and regional organizations, or whether there should be a regional structure wherein regions prepare their own integrated assessments for contribution to the global scientific panel;

(b) Whether the GESAMP proposal for the GMA process is the preferred model upon which to elaborate;

(c) Which institutional arrangements for the GMA secretariat are preferred.

47. With respect to steps towards the establishment of the GMA process, the fourth meeting of the Informal Consultative Process made the following recommendations:

(a) The convening of an inter-agency meeting (which has already been held);

(b) The convening of a group of experts to prepare a detailed plan;

(c) An intergovernmental meeting to discuss and endorse the detailed plan.

These steps may not be sufficient to establish the complex process that would be the GMA and they would not allow the involvement of Governments at a sufficiently early stage to provide meaningful input. Therefore, the General Assembly is invited to consider an alternative scenario discussed at the inter-agency meeting, as follows:

(a) A consultant would be contracted to produce a draft detailed plan on the structure and process of the GMA in consultation with interested international organizations;

(b) A group of experts of no more than two dozen participants would be convened comprising representatives of States (including all regional groups) and representatives from intergovernmental organizations and non-governmental organizations, including both scientists and policy makers, to consider and refine the draft document;

(c) The draft would be sent to States, international organizations and non-governmental organizations, scientific associations, funding mechanisms, etc., for written comments and for indication of specific issues to be addressed in the first assessment;

(d) The draft would then be revised by either (i) the group of experts in the light of comments (may be done by e-mail) or (ii) the consultant and the secretariat;

(e) An international workshop (possibly held in conjunction with the Informal Consultative Process) with representatives from all interested parties would be convened to finalize the document;

(f) The final draft would be endorsed (in late 2004) by the General Assembly or by a special international meeting convened by the United Nations, and the GMA would be formally established.

48. These steps would have to be supplemented by commitments from international organizations for the process to be fully participative and to develop a sense of ownership by all organizations.

C. Steps to be taken by international organizations

49. At the inter-agency consultative meeting, participants suggested the following steps to be taken by international organizations in preparation for the GMA:

(a) Identify focal point for discussion of GMA with consultant;

(b) Provide information to the Division for Ocean Affairs and the Law of the Sea in writing on steps they were taking to prepare for the GMA;

(c) Cooperate with consultant who would prepare draft detailed plan on the basis of what they had offered to contribute;

(d) Cooperate to select 10 to 12 experts from international organizations for group of experts meetings;

(e) Make financial provisions for the sending of experts to expert group meetings;

(f) Provide comments on the draft;

(g) Assist in the preparation of meetings of experts, workshops and international meetings;

(h) Participate in meetings of experts, workshops and intergovernmental meetings.

V. Conclusions

50. **A number of conclusions may be drawn from the material provided in the present report:**

(a) **The GMA is to be a global and comprehensive assessment of the marine environment, including socio-economic aspects, and is to take into consideration all activities affecting the oceans and the interrelationship of all the elements of the ocean environment, including biodiversity (ecosystem approach). It is to be regular, with general assessments to be completed possibly every five years;**

(b) **The GMA process should build upon existing assessments which are varied in scope and diverse in their thematic mandates. There are two possible means of integrating existing assessments: (i) material from these existing assessments could be provided directly to the GMA global scientific panel in a comparable format, to be analysed and integrated by the panel into a single global assessment; or (ii) special regional assessment systems could be established to develop integrated regional assessments, according to an agreed methodology, for synthesis by the global scientific panel;**

(c) **All United Nations agencies and other international bodies that have responded to the letter requesting proposals for modalities and that responded to the request for comments on the draft GMA report have expressed support for the GMA and a willingness to contribute material to the process;**

(d) **The GMA process should operate under the authority of the General Assembly, with substantive discussions by all interested parties on the process and its results taking place either at the Informal Consultative Process or at meetings held in conjunction with it;**

(e) **While decisions will have to be made as to the location and composition of the secretariat to be established for the GMA, it may not be necessary to designate a "lead agency". All contributing agencies, organizations and convention secretariats could be involved on a basis of equality;**

(f) **The funding requirements for the GMA could be quite considerable, even if it builds upon existing assessments, as new resources will be required to support the secretariat and the global scientific panel, as well as a number of global and regional meetings. In addition, funding will be required for preparatory work to establish the process;**

(g) **Capacity-building will be an essential element of the GMA and will require special arrangements;**

(h) **Due to the logic of its step-by-step structure, its clear separation of science and policy and its provision for consultations among all interested**

parties at the outset, the organizational model for the global assessment process proposed by GESAMP appears to be the most compelling. It is important to note that in its proposal, GESAMP suggested that it could provide scientific leadership only in the global scientific panel, not in any other part of the process;

(i) Most organizations considered that the status of GESAMP as an existing inter-agency mechanism and its long-standing experience in marine assessments qualified it for a leading role in the global scientific panel;

(j) Although enough preparatory work has already been done at a variety of forums for the establishment of a GMA process, its practical modalities are complex and require further expert consideration.

Notes

[1] Paragraph 45 of General Assembly resolution 57/141 reads as follows:

> "*Decides* to establish by 2004 a regular process under the United Nations for the global reporting and assessment of the state of the marine environment, including socio-economic aspects, both current and foreseeable, building on existing regional assessments, and requests the Secretary-General, in close collaboration with Member States, relevant organizations and agencies and programmes of the United Nations system, namely, the United Nations Environment Programme, the Intergovernmental Oceanographic Commission, the Food and Agriculture Organization of the United Nations, the International Maritime Organization, the World Health Organization, the International Atomic Energy Agency, the World Meteorological Organization and the secretariat of the Convention on Biological Diversity, other competent intergovernmental organizations and relevant non-governmental organizations, to prepare proposals on modalities for a regular process for the global reporting and assessment of the state of the marine environment, drawing, inter alia, upon the work of the United Nations Environment Programme pursuant to Governing Council decision 21/13, and taking into account the recently completed review by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, and to submit these proposals to the General Assembly at its fifty-eighth session for its consideration and decision, including on the convening of a possible intergovernmental meeting".

[2] Participants at the inter-agency meeting were: the Food and Agriculture Organization of the United Nations (FAO), the International Atomic Energy Agency (IAEA), the International Labour Organization (ILO), the International Maritime Organization (IMO), the Commission for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), the Ramsar Convention secretariat, the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), IOC/UNESCO, the World Meteorological Organization (WMO), and the Department of Economic and Social Affairs and the Division for Ocean Affairs and the Law of the Sea (Office of Legal Affairs) of the United Nations Secretariat.

[3] "A Sea of Troubles", GESAMP Reports and Studies No. 70, 2001.

[4] See UNEP (2003), "A Survey of Global and Regional Marine Environmental Assessments and Related Scientific Activities", UNEP-World Conservation Monitoring Centre (WCMC)/UNEP/UNESCO-IOC 2003. 132 p.

[5] See GESAMP Reports and Studies No. 54, 1994.

[6] GESAMP is composed of experts from IMO, FAO, UNESCO-IOC, the World Health Organization (WHO), WMO, IAEA, the United Nations and UNEP.

[7] See GESAMP Reports and Studies No. 45, 1991.

[8] See A/57/57, sect. VII, "Marine environment".

[9] Ibid., sect. VII.A.

[10] Article 2, paragraph 2, of the Convention states: "Wetlands should be selected ... on account of their international significance in terms of ecology, botany, zoology, liminology or hydrology...".

[11] Iceland, in paragraph 9 of the discussion paper it submitted to the UNEP Governing Council at is twenty-first session, stated:

> "The impact of marine pollution on sustainable use of marine resources and other ecosystem services provided by the oceans needs to be assessed and communicated to policy makers in an effective and authoritative manner. The current process of assessment of marine pollution needs to be strengthened. The process of making the results science policy-relevant is just as important as the process of collecting the data"(see www.unep.org/DEWA/water/MarineAssessment/reports/iceland_proposal.doc).

[12] For details on the Reykjavik (12-14 September 2001) and Bremen (18-20 March 2002) meetings, see the UNEP web site on the GMA: www.unep.org/DEWA/water/MarineAssessment.

[13] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 2, annex.

[14] See UNEP (2003), note 4 above, pp. 22-23.

[15] In that regard, Norway, suggested that "at the minimum" the study (the Secretary-General's report) should include results and recommendations from the Reykjavik and Bremen informal consultative meetings as background information to assist States in their discussions on the issue of the establishment of a GMA process.

[16] See UNEP, "Proceedings of the Technical Workshop for establishing a regular process for the global assessment of the marine environment, Bremen, Germany, 18-20 March 2002, annex IX, "The GMA process — an emerging model suggested by national Governments, institutions and organizations", UNEP/GC.22/2/Add.5.

[17] For details on the UNEP diagram, see annex II to the present report, paras. 12-14.

[18] See action paper IOC-XXII/2 presented at the twenty-second session of the IOC Assembly.

Annex I

Existing assessment programmes

Contents

		Paragraphs	Page
1.	Global assessment programmes	1–25	20
	(a) Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)	1–4	20
	(b) Global Ocean Observing System (GOOS)	5–8	20
	(c) United Nations Atlas of the Oceans	9	21
	(d) Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA)	10–13	22
	(e) International Coral Reef Action Network (ICRAN)	14–15	22
	(f) Global Environment Outlook (GEO)	16–17	23
	(g) Global International Waters Assessment (GIWA)	18–20	23
	(h) Millennium Ecosystem Assessment (MA)	21–22	24
	(i) Intergovernmental Panel on Climate Change (IPCC)	23–25	25
2.	Regional assessments	26–35	26
	(a) OSPAR and Helsinki Conventions	26–28	26
	(b) Regional seas programmes	29–31	26
	(c) Regional fishery bodies	32–35	27

1. Global assessment programmes

(a) Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)

1. GESAMP is a multidisciplinary scientific advisory body composed of experts (20-30 experts) who act in their individual capacity. It is the only existing mechanism in the United Nations system for inter-agency cooperation on marine environmental affairs. Presently sponsored by eight United Nations agencies,[a] GESAMP was established in 1969 and has produced 47 scientific reports on a range of issues, especially marine environment scientific assessments. Its mission is to provide authoritative, independent, interdisciplinary scientific advice to organizations and Governments to support the protection and sustainable use of the marine environment.

2. GESAMP has a long and distinguished history of preparing multidisciplinary scientific assessments of the state of the global marine environment[b] and issue-specific global environmental problems.[c] It also prepares and produces guidelines, science-based policy-oriented assessments[d] and recommendations. The definition of marine pollution elaborated by GESAMP provided the basis for the legal definition of marine pollution contained in most international Conventions, including UNCLOS. GESAMP outputs are prepared by working groups and are subject to review, clearance and endorsement by annual sessions of GESAMP. The assessments and analyses are based upon data and information available in open scientific literature, in regional reports (such as regional seas programmes reports), or available from reliable sources, including Governments.

3. GESAMP is funded by the sponsoring agencies on an ad hoc basis. Each agency covers the costs associated with the experts appointed by it: travel and daily subsistence allowance in connection with the meetings of the working groups and the sessions of GESAMP; and in some cases financial compensation to the members of the working groups for the time devoted to GESAMP-related work and associated expenses. The meetings of working groups and the annual sessions of GESAMP are hosted and serviced by the sponsoring agencies as in-kind contributions. The part-time involvement of the Administrative Secretary and the Technical Secretaries of GESAMP is not costed; it is provided as an in-kind contribution of the sponsoring agencies. The reports of GESAMP sessions and the outputs of GESAMP working groups are published, as non-commercial publications, by the agencies hosting the sessions or by the lead agencies of the working groups.

4. GESAMP has recently undertaken a review of its organization and operation and has drafted a new strategic action plan to respond to new challenges, including the establishment of a global marine assessment (GMA) process. This strategic action plan is under consideration and will be presented for formal endorsement by the sponsoring organizations.

(b) Global Ocean Observing System (GOOS)

5. GOOS is being developed by the Intergovernmental Oceanographic Commission (IOC), the United Nations Environment Programme (UNEP), the World Meteorological Organization (WMO), the Food and Agriculture Organization of the United Nations (FAO) and the International Council for the Exploration of the Sea (ICES) as a complex modular system for the collection, analysis and distribution of

data and information related to the oceans. The overall goal of GOOS is to detect and predict changes in the state of marine, and estuarine ecosystems and to improve predictions of global climate change and its effects on people and ecosystem goods and services.

6. The operational activities of GOOS include: a data-collection network; data and information management; data analysis, and preparation and dissemination of GOOS products; modelling; and training, technical assistance and technology transfer for developing countries.

7. The coastal module of GOOS is planned to be an end-to-end system (measurements-data management-analysis), sustained in perpetuity, integrated (physical, biological and chemical measurements and data processing) and user-driven. Three main themes will be addressed: coastal marine services; ecosystem and public health; and living marine resources. Active cooperation is developing between the coastal module of GOOS and the regional seas programmes in the Baltic, Mediterranean, Pacific, Black Sea, North Sea and the Caribbean regions. The Health of the Ocean (HOTO) module of GOOS is of particular relevance in the context of the GMA. The aim of the module is to provide the basis for determining prevailing conditions and trends in the marine environment in relation to the effects of anthropogenic activities, particularly those resulting in the release of contaminants to the environment.

8. GOOS is being implemented through the overall coordination of IOC and the active participation of national institutions and research centres, which serve as the primary source of data and information on which the observing system is based. Financial support for the work of these institutions and centres is provided by the relevant national authorities and is supplemented with resources obtained from other sources on a project-funding basis. Although GOOS is not primarily an assessment programme, it is described here as it is among the more important mechanisms that could provide data and information needed for a regular process for assessing the state of the marine environment, and thus could be considered as an essential component of an established process.

(c) United Nations Atlas of the Oceans

9. The Atlas is an information system developed to support the implementation of Agenda 21 and designed for use by policy makers who wish to become familiar with ocean-related issues and by scientists, students and resource managers who need access to databases. It also aims to provide the ocean industry and other stakeholders with accessible and pertinent information on matters relevant for the sustainable development of the oceans. The Atlas was developed jointly by the United Nations and national agencies responsible for matters relevant to the sustainable development of the oceans and the advancement of ocean sciences,[c] under the leading responsibility of FAO and under the guidance and coordination of a Steering Committee and a Technical Committee. The information in the Atlas is organized in four main areas of interest, including information about oceans, from their origins to their current physiology, biology and climatology; and their uses, from food to shipping, mining, energy, etc.

(d) Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA)

10. The GPA was adopted in 1995 as an action-oriented programme "designed to assist States in taking actions individually or jointly within their respective policies, priorities and resources, which will lead to the prevention, reduction, control and/or elimination of the degradation of the marine environment, as well as to its recovery from the impacts of land-based activities" and "to be a source of conceptual and practical guidance to be drawn upon" in this respect.[f]

11. The implementation of GPA is coordinated by UNEP, as the secretariat of the programme, through the GPA Coordinating Office located in The Hague. The organizations and structures of the regional seas programmes, those that are independent as well as those under UNEP, represent the basic mechanisms for developing and implementing the programme. A number of international organizations support and actively participate in the implementation of the GPA,[g] in particular, in the clearing-house mechanism.

12. The assessment of the state of the marine environment, as it relates to the impact of land-based activities, is one of the three main activities of the GPA Coordination Office. During the period 1996-1999, eight regional workshops of government-designated experts were convened within the framework of the UNEP Regional Seas Programme to discuss and finalize regional assessments on land-based activities, including prioritization of sources of pollution at both the national and the regional levels. Ten regional assessments[h] and regional programmes of action resulted from these workshops. At the global level, GESAMP was asked by UNEP to prepare, taking into account the regional assessments, a global assessment of the impact of land-based activities on the marine and coastal environment for the intergovernmental review meeting on the implementation of GPA (Montreal, 26-30 November 2001).

13. The implementation of the GPA is financially supported from a number of sources, including: UNEP; special contributions from Governments; agencies collaborating on the clearing house; and contributions from regional seas programmes. The national programmes of action are implemented and funded by the relevant government departments. Support for the Global Environment Facility (GEF) was made available for a regional project. The assessment programme undertaken in the framework of the GPA was largely funded by UNEP, including the work carried out for the programme by GESAMP. The contributions from partnerships with the private sector are, for the time being, below the expected level.

(e) International Coral Reef Action Network (ICRAN)

14. ICRAN is a joint initiative by several partners.[i] It is designed to reverse the decline in the health of the world's coral reefs and was launched through a one-year start-up phase[j] that was followed by a four-year (2000-2004) "action phase" according to a "Strategic Plan". The plan envisages a set of interlinked, highly complementary activities that will enable the proliferation of good practices for coral reef management and conservation. Strategic on-the-ground action is combined with assessment and information to enhance the effective management of people's actions and their impacts on coral reefs.

15. The ICRAN Strategic Plan is based on three main components: implementation; assessment; and communication. UNEP, through the regional seas programmes, focuses on the implementation, ICRAN on assessment, and the Coral Reef Alliance (CORAL) on the communication components of the plan. The expected products and outcomes of ICRAN are: (a) a global system of model integrated coastal management and marine protected area sites and mechanisms to ensure that coastal communities around the world near coral reefs can learn from the models and implement similar efforts; (b) documented improvement in management practices and coral reef health; (c) a set of public information materials, including best-practice guidelines for coral reef management, as part of a compiled global atlas of information for coral reef management; (d) enhanced awareness of coral reef conservation and proper management through a worldwide public information campaign; (e) "Reef Base", the global repository for data on coral reefs; (f) enhancement of the Global Coral Reef Monitoring Network (GCRMN) to provide critically needed data on coral reef health and on the status of reef-dependent peoples; (g) training materials tailored to the needs of coral reef managers; and (h) the establishment of a coral reef fund and mechanisms to support coral reef management and conservation.

(f) Global Environment Outlook (GEO)

16. GEO is an open-ended project for comprehensive, integrated, policy-relevant assessments of the global environment, including the marine environment. It was launched by UNEP in 1995 to meet the environmental reporting requirements of Agenda 21 and consists of: (a) a global assessment process, "GEO process", which is cross-sectoral and participatory, incorporating regional reviews and perceptions and building consensus on priority issues and actions through dialogue among policy makers and scientists at regional and global levels; and (b) the periodic global GEO reports[b] — the main GEO outputs — which review the state of the world's environment, identifying major environmental concerns, trends and emerging issues together with their causes and their socio-economic impacts. The reports also provide guidance for decision makers, in such areas as the formulation of environmental policies, action planning and resource allocation.

17. GEO is funded by UNEP and is coordinated by a small team of five professionals at the UNEP Division of Early Warning and Assessment in Nairobi. It is based on a collaborative effort involving and supported by a range of partners or collaborating centres worldwide including multidisciplinary institutes with a regional outlook that work at the interface between science and policy. In addition to the collaborating centres, associated institutions contribute to the assessment and provide specific inputs into the GEO process in their areas of expertise. Regional consultations are an essential feature in the preparation of the GEO assessments. They are attended by government-nominated participants and representatives of the respective collaborating centres.

(g) Global International Waters Assessment (GIWA)

18. GIWA is a four-year project with the overall objective of developing a comprehensive strategic assessment that may be used by the Global Environment Facility to identify priorities for remedial and mitigatory actions in international waters designed to achieve significant environmental benefits at the national, regional and global levels. To meet this objective, the project aims to produce a fully

comprehensive and integrated assessment of global international waters, encompassing the ecological status and causes of environmental problems of transboundary freshwater basins and their associated coastal and ocean systems.

19. The geographic scope of the project is global with a regional focus. The substantive scope of the project includes an integrated assessment of the environmental, managerial, scientific, legal, social and economic aspects of water-related environmental problems. The environmental and socio-economic impacts will be analysed from the standpoint of five major concerns: freshwater shortage; pollution; habitat and community modification; unsustainable exploitation of fisheries and other living resources; and global change. A causal chain analysis for the identified major concerns will be an integral part of the analysis. GIWA will gather only the information required to complete a stepwise, iterative analysis of transboundary water-related problems and their causes.

20. The project is implemented by UNEP in cooperation with the University of Kalmar in Sweden. Overall coordination of the project is provided by a small core team of professionals hosted by the university. The project is carried out by a network of GIWA focal points and thematic teams with full involvement of national scientific and technical experts, managers and policy makers. GIWA is funded by GEF, UNEP and national counterpart contributions. In-cash and in-kind funding over a given 49-month period of the project is about $13 million.

(h) Millennium Ecosystem Assessment (MA)

21. The Millennium Ecosystem Assessment, which was launched by the Secretary-General of the United Nations, Kofi Annan, in 2001, will prepare a series of four in-depth reports and up to seven shorter studies intended for decision makers in government, the private sector and civil society groups. The studies, to be released over two years (to the end of 2003), will be published by the Millennium Ecosystem Assessment through Island Press (United States) after extensive peer review.[1] The purpose of the MA is to improve the management of the world's natural and managed ecosystems by helping to meet the needs of decision makers and the public for peer-reviewed, policy-relevant scientific information on the condition of ecosystems, the consequences of ecosystem change and options for response. It consists of a comprehensive global assessment as well as sub-global assessments of conditions and changes in ecosystems in selected individual communities, countries and regions. The MA is carried out by an international network of experts organized in four expert working groups focused on conditions, scenarios, response options, and sub-global assessments. It was planned to be closely coordinated with other global assessment processes, including GEO, GIWA and the Intergovernmental Panel on Climate Change (IPCC), and will work closely with research programmes such as the International Geosphere-Biosphere Programme (IGBP) and the GOOS Global Terrestrial Observing System (GTOS) and Global Climate Observing System (GCOS). The primary target audience for the global findings of MA are the parties to the ecosystem-related Conventions.

22. The MA is a four-year effort, entailing a cost of $21 million. It was designed by a partnership of United Nations agencies, international scientific organizations and development agencies with guidance from the private sector and civil society groups. The Global Environment Facility, the United Nations Foundation, the David and Lucile Packard Foundation, the World Bank, UNEP, the Government of Norway,

the Rockefeller Foundation, the United States National Aeronautic and Space Administration (NASA) and the United Kingdom Department for Environment, Food and Rural Affairs (DEFRA) are sponsors and provide major contributions to the MA budget and to its core budget. The MA secretariat is coordinated by UNEP. Six different institutions provide core administrative, logistical and technical support to the working groups that undertake the assessments. Home institutions cover most of the time of the experts involved in the assessment.

(i) Intergovernmental Panel on Climate Change (IPCC)

23. IPCC was established in 1988 by the World Meteorological Organization and UNEP to assess the scientific, technical and socio-economic information relevant for an understanding of the risk of human-induced climate change. The Panel is jointly sponsored by UNEP and WMO and is open to all member countries of those organizations. It does not carry out new research or monitor climate-related data, but rather bases its assessment mainly on published and peer-reviewed scientific and technical literature. The work of the Panel is organized through plenary session meetings about once a year and the activities of its three working groups and a task force. Working Group I assesses the scientific aspects of the climate system and climate change; Working Group II addresses the vulnerability of socio-economic and natural systems to climate change, the possible and probable negative and positive consequences of climate change, and options for adapting to the expected changes; and Working Group III assesses the options for limiting greenhouse gas emissions and otherwise mitigating climate changes. The Task Force on National Greenhouse Gas Inventories oversees the National Greenhouse Gas Inventories Programme.

24. The plenary sessions of the Panel accept or approve the IPCC reports and the Panel's budget. The Chairman and the Bureau of the Panel are elected by the plenary sessions of the Panel. Three assessment reports have been issued by the Panel. The first assessment report (1990) played an important role in establishing the Intergovernmental Negotiating Committee for a United Nations Framework Convention on Climate Change by the General Assembly. The second one (1995) provided key input to negotiations which led to the adoption of the Kyoto Protocol to the Climate Change Convention in 1997. The third report (2001) provides a comprehensive and up-to-date assessment of the policy-relevant scientific, technical and socio-economic dimensions of climate change,[m] concentrating on new findings since 1995 and paying greater attention to the regional scale. A fourth assessment is to be completed in 2007.

25. The small secretariat of IPCC (two professionals and three support staff) is hosted by WMO, jointly supported by WMO and UNEP, and managed by WMO. The Trust Fund is supported by annual contributions from Governments on the basis of a scale adopted by the Panel; cash contributions from UNEP and WHO; and other voluntary cash contributions. The average annual budget of IPCC is about $2.5 million. The joint WMO/UNEP IPCC Trust Fund provides the main financial support with additional support provided through in-kind contributions. WMO contributes the cost of the Panel's Secretary and the cost of housing the secretariat, while UNEP supports the cost of a programme officer. Governments provide for the costs of selected meetings, workshops, document translation and publication.

2. Regional assessments

(a) OSPAR and Helsinki Conventions

26. The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) and the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention) have evolved without UNEP assistance.[n] The OSPAR and the Helsinki Conventions have each developed their own commissions and secretariats, which are funded by their members.

27. The 1992 OSPAR Commission publishes at regular intervals joint assessments of the quality of the marine environment in the Convention area. Quality status reports have been prepared for five regions of North-East Atlantic[o] which, together with earlier work done within the framework of the 1993 North Sea quality status report, the Arctic Monitoring and Assessment Programme and the Irish Sea Coordination Group, form the basis for the most recent OSPAR publication, "Quality Status Report 2000 for the North-East Atlantic". These assessments evaluate the effectiveness of measures taken or planned for the protection of the marine environment and identify priorities for action.

28. The Helsinki Commission has also been assessing the effects of the various pollutants on the natural resources of the Baltic Sea for the past 20 years. The resulting assessment reports are unique compilations of scientific facts born of outstanding cooperation among the scientific community in the Baltic region. The most recent assessment, the "Fourth Periodic Assessment of the State of the Environment of the Baltic Marine Area, 1994-1998", is based on the contributions of no less than 150 scientists from all the Baltic States. This active cooperation has served as the very foundation of assessing developmental trends, identifying what or who is responsible for changes — be it human activities or natural variations — and, finally, for determining the success of protection measures in the Baltic region.

(b) Regional seas programmes

29. UNEP has played a leading role in initiating or supporting the negotiation of a number of regional seas conventions. Most of the regional seas conventions are in the form of comprehensive framework conventions, in which the main text containing general provisions is supplemented with several protocols or annexes specifying the concrete measures expected to be implemented by the Contracting Parties.[p] All regional seas conventions are associated with specific programmes supporting the implementation of the provisions of the convention and their protocols. The specific activities for any region depend upon the needs and priorities in that region.[q]

30. UNEP provides the secretariat for four conventions and seven action plans, either directly through its headquarters in Nairobi or through semi-autonomous regional coordinating units operating under the authority of the Contracting Parties and managed by UNEP on their behalf. The other regional seas conventions and action plans have secretariats established and maintained by the Contracting Parties to those conventions. The secretariats provide overall guidance and coordinate the agreed activities at the regional level. At the country level, the internal coordination of these activities is the responsibility of national coordinators appointed by each Contracting Party. For the implementation and coordination of some specific

activities, particularly those linked with legally binding provisions (for example, protocols adopted under the conventions), regional activity centres have been established by the decisions of the Contracting Parties. Most of these centres are national institutions with regional roles assigned to them by the meetings of the Contracting Parties and operate on a project-funding basis. One of the four elements of the overall strategy followed by action plan is: "Assessment of the state of the marine and coastal environment, of the trends in the quality of this environment, of the sources of the degradation of the marine and coastal environment, and of the impact of this degradation on human health, ecosystems and amenities".[r]

31. Seed money for the development of the conventions and the associated action plans developed under UNEP sponsorship was provided by UNEP. The common costs associated with the implementation of the conventions and their action plans (such as secretariat, meetings, coordination, training) are met through special trust funds established by the Contracting Parties to each convention. Individual Governments fund the implementation of the conventions and action plans at the national levels, although considerable assistance is provided to developing countries also through the trust funds established under the conventions. Additionally, there are projects that are financed or co-financed through resources obtained, on a project-funding basis, from external sources (for example, GEF, European Union) or specially earmarked government contributions.

(c) Regional fishery bodies

32. There is an expanding network of regional fishery bodies, which includes FAO and non-FAO regional fishery bodies. Depending on their scope and objectives, they may have varying types and levels of activities aiming at the development and implementation of improved management of fisheries and fishery resources, better collection and exchange of scientific data and information, promotion and dissemination of technical and policy advice on fisheries among their constituencies and the creation of partnerships with other regional fishery bodies.

33. The FAO Fisheries Department has been supporting the development and strengthening of a significant number of regional fishery bodies, and has been promoting cooperation, information exchange and the development of policy and technical measures in support of sustainable fisheries and the conservation of fishery resources. A number of meetings of regional fishery bodies have been organized by FAO and their outcomes have been discussed by the FAO Committee on Fisheries (COFI). The most recent such meeting reviewed the decisions of the 2003 session of the Committee of relevance to regional fishery bodies and discussed the findings of a recent FAO study on the role of international fishery organizations or arrangements and other bodies concerned with the conservation and management of living aquatic resources. The meeting furthermore discussed external factors affecting the management of fisheries, partnership efforts between regional fishery bodies and FAO to develop the Fisheries Resources Monitoring System (FIRMS), implications for regional fishery bodies of the World Summit on Sustainable Development and approaches to incorporating ecosystem considerations into fisheries management by regional fishery bodies.

34. Of particular relevance in the context of the proposed GMA process and associated regional assessments is the development of the Fisheries Resources Monitoring System, a worldwide collaborative network for monitoring and sharing

information on fisheries, fishery resources and their management. The FIRMS partnership network, being developed within the framework of the FAO Fisheries Global Information System (FIGIS), has as its aim the improvement of both the quality and the coverage of the global monitoring of marine fishery resources, by (a) providing comprehensive, harmonized, quality-controlled and updated information on fisheries and resources, based on standardized data and methodologies; (b) enabling collaboration among FIRMS partners, including regional fishery bodies, national scientific institutions and others, who supply information according to their respective mandates and who share agreed standards and protocols; (c) facilitating the streamlined flow of information through the systematic integration of material from national to regional and global levels; and (d) promoting policy change and supporting responsible fisheries development policies with information on strategic issues such as poverty, food security, overcapacity and overfishing, ecosystem-based management, climatic impacts, etc.

35. FAO regularly analyses, synthesizes and publishes such information on marine fishery resources, at the regional and global levels, in its biennial reviews of the state of the world marine fishery resources and of the state of world fisheries and aquaculture.

Notes

[a] Current sponsoring agencies of GESAMP are: International Maritime Organization (IMO), Food and Agriculture Organization of the United Nations (FAO), Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO), World Health Organization (WHO), World Meteorological Organization (WMO), International Atomic Energy Agency (IAEA), the United Nations and United Nations Environment Programme (UNEP).

[b] See, for example, "A Sea of Troubles", GESAMP Reports and Studies, No. 70, 2001.

[c] See, for example, "Protecting the Oceans from Land-Based Activities. Land-Based Sources and Activities Affecting the Quality and Uses of the Marine, Coastal and Associated Freshwater Environment", GESAMP Reports and Studies, No. 71, 2001.

[d] "Guidelines for marine environmental assessment", GESAMP, 1994.

[e] Partners in the development of the Atlas include: United Nations, UNEP, FAO, IOC, WMO, IMO, IAEA, the secretariat of the Convention on Biological Diversity, the United States National Oceanic and Atmospheric Administration and the Head Department of Navigation and Oceanography of the Ministry of Defence of the Russian Federation.

[f] A/51/116, annex II, paras. 3 and 14.

[g] WHO, IAEA, IMO and FAO: For each source category, UNEP or one of the agencies acts as the lead agency.

[h] The assessments have been published by UNEP in the Regional Seas Reports and Studies series and are also available on the GPA web site: www.gpa.unep.org.

[i] The founding partners of ICRAN include World Fish (previously International Center for Living Aquatic Resources Management (ICLARM)), UNEP, the World Resources Institute (WRI), the World Conservation Monitoring Centre (WCMC), the Global Coral Reef Monitoring Network (GCRMN), the International Coral Reef Initiative-Coordinating Planning Committee (ICRI-CPC) and the Coral Reef Alliance (CORAL).

[j] The start-up phase was funded by the United Nations Foundation.

[k] The latest report is GEO-3: *Global Environment Outlook 3 — Past, present and future*.

perspectives. Previous reports are GEO-1, published in 1997, and GEO-2 in 1999.

[l] The first in the series of MA studies, entitled "Ecosystems and Human Well-being: A Framework for Assessment", was published in September 2003. Its findings are also available through the MA web site, www.millenniumassessment.org.

[m] The Principles Governing IPCC Work adopted by the Panel at its fourteenth session in 1998 require that the "IPCC reports should be neutral with respect to policy, although they may need to deal objectively with scientific, technical and socio-economic factors relevant to the application of particular policies" and that "review of IPCC documents should involve both peer review by experts and review by Governments." (Principles 2 and 3)

[n] There are 11 major regional seas conventions in force: Helsinki (1992), Barcelona (1976 — revised in 1995), Kuwait (1978), Abidjan (1981), Lima (1981), Jeddah (1982), Cartagena (1983), Nairobi (1985), Noumea (1986), Bucharest (1992) and the Oslo-Paris Convention on the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) (1992). In addition to the conventions in force, there are two regional seas conventions under negotiation: one for the Caspian Sea and another for the North-East Pacific.

[o] Region I: Arctic Waters; region II, the Greater North Sea; region III, the Celtic Seas; region IV, the Bay of Biscay and Iberian Coast; and region V, the Wider Atlantic.

[p] A number of regional conventions, particularly those adopted in the early 1970s, were amended or even entirely revised in order to reflect the broadening concern of the Contracting Parties for the complex problems of the marine environment. The most radical change was the merging of two conventions into the new OSPAR Convention. Further revisions and amendments are being considered for some conventions.

[q] While the focus of the first action plans was on the protection of the marine environment from pollution, the subsequently adopted action plans shifted their priorities to all issues relevant to the development and protection of the marine environment and their resources. The periodic revisions of the action plans broadened their scope to emphasize issues related to the integrated management and use of the coastal and marine environment along the lines recommended by Agenda 21. In some regions determined efforts are being made to pay more attention to the specific problems of small island developing States, to the management of associated river basins and to the potential effects of climate change.

[r] Two regional assessments are cited as examples of the type of periodic reports produced by regional seas convention secretariats: "The State of the Marine and Coastal Environment in the Mediterranean Region" (MAP Technical Report No. 100, UNEP, Athens, 1996), and "Quality Status Report 2000" (the OSPAR Commission, Paris, 2000).

Annex II

Summary of replies on proposals on modalities for the GMA

Contents

		Paragraphs	Page
A.	Member States	1–9	32
	1. General observations	1–2	32
	2. Specific observations	3–9	32
	(a) Rationale for the establishment of a GMA process under the United Nations	3	32
	(b) Characteristics of the GMA process	4	32
	(c) GMA and ocean governance	5	33
	(d) GMA mechanism or structure	6	33
	(e) Financing the GMA process	7	33
	(f) Capacity-building	8	33
	(g) Host institution or secretariat	9	34
B.	United Nations departments, regional commissions and programmes	10–14	34
	1. Department of Economic and Social Affairs	10	34
	2. Economic and Social Commission for Western Asia (ESCWA)	11	34
	3. United Nations Environment Programme (UNEP)	12–14	34
C.	The specialized agencies, the International Atomic Energy Agency and the International Hydrographic Bureau	15–28	35
	1. Food and Agriculture Organization of the United Nations (FAO)	15–17	35
	2. International Maritime Organization (IMO)	18	36
	3. UNESCO Intergovernmental Oceanographic Commission (IOC)	19–22	37
	4. United Nations Industrial Development Organization (UNIDO)	23	38
	5. World Health Organization (WHO)	24	38
	6. World Meteorological Organization (WMO)	25	38
	7. International Atomic Energy Agency (IAEA)	26–27	39
	8. International Hydrographic Bureau (IHB)	28	39
D.	Inter-agency mechanism: GESAMP	29–36	40
E.	Convention secretariats	37–43	41
	1. Convention on Biological Diversity	37–38	41

2.	London Convention 1972	39	42
3.	Ramsar Convention on Wetlands	40–43	42
F.	Global intergovernmental organizations outside the United Nations system	44	43
	Organisation for Economic Cooperation and Development (OECD)	44	43
G.	Regional intergovernmental organizations	45–49	43
1.	European Union	45–46	43
2.	European Environment Agency (EEA)	47–48	44
3.	Baltic 21	49	44
H.	Regional fisheries organizations	50–51	44
1.	The Inter-American Tropical Tuna Commission (IATTC)	50	44
2.	The North Pacific Anadromous Fisheries Commission (NPAFC)	51	45
I.	Non-governmental organizations	52–55	45
1.	The Census of Marine Life	52	45
2.	International Ocean Institute (IOI)	53	45
3.	The Reef Check	54	45
4.	World Conservation Union (IUCN)	55	46

A. Member States

1. General observations

1. States expressed their "strong" support for the establishment of a GMA mechanism, as endorsed by the international community at the World Summit on Sustainable Development and confirmed in General Assembly resolution 57/141 of 12 December 2002, in order to contribute to an improved management of the oceans for the protection of the marine environment. They highlighted their approval of the Reykjavik and Bremen proceedings and pointed to the United Nations Environment Programme (UNEP)/World Conservation Monitoring Centre (WCMC) survey as providing a good overview of the ongoing regional assessments that would form the basis for regular global assessments. There was broad agreement on the need for a global overview of the state of the marine environment, for forecasting future trends based on scenarios and on the need to provide advice on possible measures to respond more effectively to threats of negative impacts of human activities on the marine environment and marine resources. Some States considered that the review of the state of the marine environment presented by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) in its report entitled "A Sea of Troubles"[a] provided a useful input to the establishment of the process.

2. States believed that the GMA could adopt the ecosystem approach and that specific ongoing or planned large marine ecosystems projects could provide a basis for developing the GMA and that, to avoid duplication, the outputs of assessment activities under regional seas organizations or conventions must be used in a coordinated manner. States considered it fundamental that "all" United Nations organizations referred to in General Assembly resolution A/57/141 should commit to taking an active part in the GMA. Providing a regular and timely assessment of the state of all aspects of the marine ecosystem, including consideration of socio-economic implications, would undoubtedly be a challenging and resource-intensive task.

2. Specific observations

(a) Rationale for the establishment of a GMA process under the United Nations

3. The GMA process would enable policy makers and other stakeholders to address the problems of the marine environment in a comprehensive and integrated manner on the basis of accessible and authoritative information on the state of the marine environment, instead of existing information deemed to be fragmented and lacking in coherence and comparability. The new process should redress the lack of scenarios outlining the socio-economic consequences of the degradation of the marine environment if current practices remain unchanged or, on the other hand, the possible benefits of a given level of policy intervention.

(b) Characteristics of the GMA process

4. States emphasized that the GMA process had to result in a regular and coherent overview of the marine environment, particularly of areas where there was a lack of information (such as health and food security). The process should be based on the existing networks of the United Nations organizations and their

programmes and in particular should build on existing regional assessments, as well as the assessments produced, for example, by GESAMP and the Global International Waters Assessment (GIWA). Some States considered that the GMA could stimulate enhanced cooperation among United Nations organizations often hampered by competition over resources.

(c) GMA and ocean governance

5. Some States were of the view that the GMA process should be accountable to the General Assembly, which has general oversight and policy functions with respect to the oceans and seas. Any report or recommendations from the GMA could be included in or annexed to the Secretary-General's annual report on oceans and the law of the sea. The Informal Consultative Process already provided for an inclusive, broad-format input to the discussions of the General Assembly. According to other States, the GMA process could also be adapted to the intergovernmental decision- and policy-making structure established by the Law of the Sea Convention and its implementing agreements. A question was also raised as to how the GMA process would interface with the new inter-agency coordination and cooperation mechanism within the United Nations system.

(d) GMA mechanism or structure

6. Some States insisted that any mechanism put in place should secure the participation of Governments. The experience of the Intergovernmental Panel on Climate Change (IPCC) could provide some guidance. Credibility was highlighted as a key aspect of the new process, which would also have to be inclusive and transparent. Among its functions, the global report to be designed could synthesize regional assessments, identify gaps and scenarios, assess the quality of data, define ecosystem boundaries and establish an effective web site. There was the expectation that the GMA process would also foster the adoption of standards or criteria, which would permit comparisons to be made among different geographic areas. Any outcome would undergo a peer review process.

(e) Financing the GMA process

7. The GMA process would function well and be effective with an appropriate and predictable financial base that would not adversely affect the fulfilment of existing tasks and responsibilities under UNCLOS and the relevant General Assembly resolutions.

(f) Capacity-building

8. It was considered important to include in the GMA process the end-users of the assessment. It was pointed out that the United Nations system already imposed extensive reporting obligations on States, putting a heavy burden on developing States which in many cases lacked the necessary scientific and administrative capacity to collect and analyse data. The new GMA process should limit as much as possible reporting obligations and particular attention should be paid to ways of facilitating data and information gathering and analysis in marine areas pertaining to developing countries and small island developing States, where suitable mechanisms were not currently in place.

(g) Host institution or secretariat

9. Respondents believed that the question of a host institution or secretariat, including the issue of resources and capacities required, could only be decided once the main elements of the process had been identified. However, it was suggested that the Secretary-General's report on the GMA might include possible sources of funding for the GMA process.

B. United Nations departments, regional commissions and programmes

1. United Nations Department of Economic and Social Affairs

10. The Department of Economic and Social Affairs pointed out that chapter 17 of Agenda 21 reflected the necessity of establishing regular reviews and consideration of marine environmental and developmental issues. The Commission on Sustainable Development had at a number of meetings considered oceans and seas (1996, 1997 and 1999) and had dealt with the issue of the establishment of the GMA by highlighting the importance of marine science information gathering and dissemination. In that regard, the Department confirmed that, as the secretariat for the Commission, it had fully supported the decision taken at the World Summit on Sustainable Development on the establishment of a GMA process which should take an integrated and coordinated approach, reflect the interests and competencies of all stakeholders and should not duplicate existing marine assessment activities. The Department pointed out that GESAMP provided a valued source of independent and expert advice which had been recognized by the Commission as well as other intergovernmental bodies. The review recently completed by GESAMP should position it for an even more relevant role in the current initiatives. The Department looked forward to working with Division for Ocean Affairs and the Law of the Sea and other partners in the international community to implement the decisions to be taken on the GMA.

2. Economic and Social Commission for Western Asia (ESCWA)

11. ESCWA emphasized the importance of the socio-economic aspects of the state of the marine environment. Cautioning against duplication, ESCWA pointed out that UNEP, the Mediterranean Action Plan, the Mediterranean Commission for Sustainable Development and the Mediterranean Technical Assistance Programme were all mandated to conduct assessments in the ESCWA region; the GMA process should therefore ensure complementarities and intertwining among the relevant regional and international organizations. As the relevant activities of ESCWA focused exclusively on the assessment of trade and environment issues, it proposed to assist in monitoring the socio-economic aspects related to trade and marine environment issues (for example, the fisheries sector). However, the implementation of this proposal would be dependent on the availability of resources.

3. United Nations Environment Programme (UNEP)

12. UNEP pointed out that the UNEP Governing Council, in part II of its decision 22/1 of 7 February 2003,[b] had welcomed the fact that outcomes of the consultations organized by UNEP in response to Council decision 21/13 of 9 February 2001[c] on the GMA had contributed significantly to the target set out in the Johannesburg Plan of Implementation of the World Summit on Sustainable Development.[d] To

implement decision 22/1, UNEP proposed the following activities: (a) UNEP-wide consultation on the contribution of UNEP to the assessment process;[e] (b) presentation of the relevant findings of existing UNEP assessment-related activities as inputs for the GMA, such as the output of GIWA, the Marine Ecosystem Assessment (MA), a planned GEO-Marine, and small island developing States environmental update booklets; (c) an expert meeting on modalities, focus and method of assessment with financial support in particular for the participation of experts from developing countries; (d) establishment of a trust fund, as required by the UNEP Governing Council, for the involvement of developing countries in UNEP assessment components; and (e) preparation of a report on how UNEP can contribute to the GMA.

13. UNEP was of the view that there was a need to establish a composite assessment procedure whereby different agencies can contribute to the assessment within a common framework. The UNEP GMA "modular partnership approach" (see annex IV) aimed to build a regular, continuous and cost-effective process based on existing and ongoing programmes and available resources. To start such a process, a GMA working group composed of representatives from United Nations agencies and other organizations might be formed. It could define areas of responsibility, contribution and cooperation of participating agencies based on their core mandate and competencies and identify needs and gaps in assessments taking into account the existing assessments and relevant activities of all participating agencies. Each United Nations agency would be responsible for an assessment module in accordance with its mandate. To ensure scientific credibility and user relevance, the assessment modules would be set up in close consultation with stakeholders and mobilize independent scientific experts. Each module would consist of global and thematic assessments. A key component would be mechanisms to ensure the support to and interaction with sub-global assessments. Efforts to ensure the participation of experts from developing countries and capacity-building in those countries would be built into each module. Overall global synthesis reports would be produced at regular intervals in partnership with agencies, scientific experts and relevant stakeholders. The modular partnership approach would link the regular assessment and reporting process to different relevant intergovernmental forums and ultimately report to the United Nations General Assembly.

14. UNEP stood ready to take responsibility for the environmental component of the assessment. Moreover, in accordance with part I.A of Governing Council decision 22/1,[f] the Executive Director has initiated a broad consultative process for further strengthening the scientific base of UNEP. Finally, UNEP reaffirmed the utmost importance of ensuring that the modalities of the GMA were scientifically credible, salient, relevant and legitimate.

C. The specialized agencies, the International Atomic Energy Agency and the International Hydrographic Bureau[g]

1. Food and Agriculture Organization of the United Nations (FAO)

15. FAO supports and intends to contribute to the recommended GMA. FAO reaffirmed that existing mechanisms and frameworks should be used to avoid duplications and that no new structure should be established. It was of the view that the task of the GMA should be accomplished through more effective collaboration

among relevant United Nations agencies and through full integration of ongoing international initiatives and means. In that regard, it pointed out that the regular and comprehensive, multidisciplinary FAO reports on the world's marine resources and fisheries were available to the GMA process. FAO pointed out that in addition to the those reports, it provided information on the world's fisheries through web-based information systems such as the Fisheries Global Information System (FIGIS), and in particular the Fishery Resources Monitoring System (FIRMS), the aim of which was to provide access to high-quality information on the global monitoring of marine resources. FIRMS drew together a unified partnership of international organizations, regional fishery bodies and national scientific institutes collaborating within a formal agreement. FAO also stressed the importance and highest priority of the United Nations Atlas of the Oceans in a future reporting process.

16. FAO believed that GESAMP, with its experience in the scientific review of the state of the marine environment,[h] had an important role to play with regard to the GMA. It recognized and strongly supported GESAMP as an independent scientific advisory body in the United Nations system whose mission made it well suited to carry out the following functions for the GMA: (a) providing a technical and scientific overview of the marine environmental monitoring assessment and related activities of United Nations agencies and advising on how those activities might be improved and better integrated and coordinated (peer review role); (b) providing scientific reviews, analyses and advice on specific topics/issues relevant to the condition of the marine environment, its investigation, protection, and/or management (on request); (c) providing scientific and technical guidance on the design and conduct of marine environmental assessment; (d) integrating and synthesizing the results of regional and thematic assessments and scientific studies conducted by United Nations agencies and partners into a global assessment of the marine environment; and (e) in the process, identifying new and emerging issues regarding the degradation or management of the marine environment of relevance to Governments and sponsoring organizations.

17. The global reporting process should ensure the highest possible level of integration, complementarities and synergy with other assessments and reporting initiatives, programmes, mechanisms and frameworks. FAO cautioned that a piecemeal approach to collaboration on the oceans (of which the GMA was only one aspect) would be ineffective in the absence of a mechanism for United Nations agencies to meet regularly, discuss their overall programmes on oceans, identify common grounds, conflicts, potential synergies, joint projects, etc.

2. International Maritime Organization (IMO)

18. In general, IMO was of the view that the mechanism for reporting established for the Commission on Sustainable Development could form a model for the new initiative. It was through that mechanism that the Commission reported on the numerous follow-up activities to chapter 17 of Agenda 21 of the United Nations Conference on Environment and Development. The GMA process should be able to provide IMO with a platform on which it could demonstrate its achievements in the protection of the marine environment from shipping and land-based sources.[i]

3. Intergovernmental Oceanographic Commission (IOC)

19. IOC pointed out that the Bremen meeting had valued highly the governance implications of establishing a GMA and had defined for it a general framework encompassing a regional and global phase. The recommendations of the Bremen meeting reflected a broad consensus that had been reached between the representatives of national institutions, Governments, regional and global organizations and programmes. IOC therefore strongly recommended that the recommendations and conclusions of the Bremen meeting should form the basis for modalities for the GMA as requested by the General Assembly in its resolution 57/141. Such an exercise would lead to the development of a mechanism to improve ocean governance by assisting States in discharging their responsibilities as parties to the relevant international conventions and agreements, including UNCLOS, the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, regional seas conventions, the London Convention 1972, as well as others.

20. The Executive Council of IOC at its thirty-fifth session (2002) had adopted Resolution EC-XXXV.3 on the feasibility of establishing a regular GMA process, in which it had instructed the IOC Executive Secretary: (a) to explore with UNEP and other relevant partners the feasibility of IOC leading the assessment programme, including the mobilization of necessary funds through Governments, international agencies and donor organizations, as well as cooperation with other global assessment programmes; and (b) to report to the next ordinary session of the IOC Assembly on the development of the matter, including the financial and human resources implications of IOC leading the assessment programme. The IOC Assembly at its twenty-second session (24 June-2 July 2003), recognizing the need to link science and policy-making and to ensure sustainable capacity-building in developing countries as an integral part of the assessment, instructed the Executive Secretary: (a) to arrange an appropriate contribution of IOC and its programmes, including the feasibility of taking a lead role, to the preparation of proposals on modalities for a GMA; and (b) to seek, in cooperation with other relevant organizations, extrabudgetary resources including for IOC, in support of its involvement in a regular process for the GMA, taking into account the need for the active participation of developing countries.[1]

21. IOC believed that the discussions in the IOC Executive Council and at the Informal Consultative Process had pointed to the consensus among member States that the effective implementation of UNCLOS and environmental conventions, for which the GMA would serve as an essential instrument for improving governance, would only be possible through the close cooperation of the entire United Nations system and the integration of the expertise and valuable experience residing in the specialized agencies. In that regard, IOC called attention to some of the following recommendations adopted at the Bremen meeting: (a) that the cost-effective, efficient and sustainable operation of a GMA process would require a multi-level organizational, methodological and procedural architecture which should build on existing resources related to assessment where possible, and (b) that the GMA process should include an interface with Governments, regional bodies, the scientific community and stakeholders. IOC also highlighted operational arrangements for the GMA which would need to be considered, including ownership by all relevant United Nations organizations; a global coordinating mechanism within the framework of IOC, UNEP or GESAMP which could host a core

secretariat; and the optimal use and, where necessary, strengthening of regional mechanisms.

22. IOC understood that the United Nations General Assembly expected to play a direct role in the assessment, which was consistent with its traditional role with respect to UNCLOS and ocean governance issues. It considered, therefore, that the report of the GMA should be addressed to the General Assembly and that the process should be endorsed, from the outset, by a high-level intergovernmental meeting. Finally, the GMA could promote significant institutional innovations to improve current arrangements on ocean governance.

4. United Nations Industrial Development Organization (UNIDO)

23. UNIDO expressed its support for the establishment of a GMA process under the United Nations, which would include socio-economic aspects. Since 1990, UNIDO had actively provided technical and scientific assistance to developing coastal countries with a view to contributing to efforts at securing the sustainability of marine resources. Working with the Global Environment Facility and other United Nations implementing agencies, UNIDO provided guidance and capacity-building on issues such as the restoration of coastal and marine ecosystems within the framework of sustainable development using the concept of large marine ecosystems and their contributing freshwater basins as the geographic focus for integrating change. UNIDO supported the work of GESAMP and would seek an active participation in the working groups where it could provide, in addition to a scientific and technical contribution, substantial and meaningful inputs to the socio-economic aspects.

5. World Health Organization (WHO)

24. WHO recognized that coastal and marine environments were of significance to health agencies. It was convinced of the value of "multi-agency cooperation", especially in areas such as the marine environment, which concerned many sectors and diverse stakeholders. In that regard, it welcomed the initiative to establish a GMA process. WHO noted that relevant activities were being undertaken through the United Nations Atlas of the Oceans, through GESAMP, and through the activities of the Regional Seas Programme. WHO suggested that in developing modalities for the GMA, it would be important to consider and harmonize other initiatives. Modalities should be streamlined and effective, minimizing duplication and building on the strengths of contributing partners. Subject to the establishment of appropriate modalities and an agreed plan of work, and within resource constraints, WHO would contribute to the GMA, for example, through global reporting on discharges of sewage into the marine environment.

6. World Meteorological Organization (WMO)

25. WMO expressed its support to the establishment of a GMA process and would contribute to it through its programmes and inter-agency bodies and observing systems (such as the Global Ocean Observing System (GOOS)) as well as through the WMO Global Atmosphere Watch Programme, in areas related to the atmospheric input of pollutants into the sea and the effects of global changes and other atmosphere-related processes on the marine environment. WMO reaffirmed its

support to GESAMP as a multidisciplinary scientific advisory body which, in its view, could serve as the core scientific panel for the GMA.

7. International Atomic Energy Agency (IAEA)

26. IAEA pointed out that it had chosen to support global assessment exercises of the state of the marine environment by furnishing experts to GESAMP, which had been undertaking independent marine environment assessments on a periodic basis. It found GESAMP mechanism satisfactory for IAEA purposes in that its in-depth assessments regarding, inter alia, the increasing use of both natural and man-made isotopes in ocean science provided authoritative, scientific advice to the Agency, thus helping it to ensure the protection and sustainable use of the marine environment.

27. Therefore, IAEA suggested that for a regular GMA process, existing mechanisms and established frameworks such as GESAMP should be strengthened and used more effectively. It pointed out that GESAMP had gone through an evaluation review supported by IAEA, which had produced a strategic plan that could serve as a road map for a strengthened and more efficient GESAMP mechanism. IAEA supported the strategic plan and, as an indication of its strong commitment to it, had offered to host the proposed self-funded GESAMP office at its Marine Environment Laboratory in Monaco. For IAEA, it was appropriate that a new GESAMP initiative, or any successor United Nations body charged with the GMA, should be based at the United Nations only marine environmental laboratory. IAEA insisted that the road towards the GMA should be built upon existing mechanisms, structures and expertise, and further enhanced through strengthened United Nations inter-agency collaboration. This was critical at a time of serious financial constraints within the United Nations system. IAEA believed that creating a totally new mechanism or body without taking advantage of ongoing efforts which had successfully produced state-of-the-art marine assessments would be redundant and counterproductive.

8. International Hydrographic Bureau (IHB)

28. IHB recognized that developing a GMA process would be a challenging task. However, it was committed to contributing to such an effort within its area of competence. It pointed out that the status of the collection and maintenance of hydrographic data was a fundamental element of any assessment of the marine environment. A hydrographic survey, conducted according to the well-defined standards developed by the Bureau, established a repeatable geo-spatial framework from which all other collection and assessment activities could be referenced. Additionally, many of the measurements required of a hydrographic survey could be directly related to other marine environmental assessment components such as marine habitats or resources. An assessment of the adequacy of nautical charts, in terms of geographical coverage and accuracy with respect to intended use, was an effective indicator of a coastal State's maritime health. The availability of up-to-date nautical charts enhanced the safety of navigation, promoted economical maritime commerce and encouraged recreation and tourism. In that regard, the Bureau was of the view that regular assessments of a region's maritime safety information infrastructure, the adequacy of its hydrographic data collection and the availability of current nautical information and services were important measures of its good stewardship of its marine environment.

D. Inter-agency mechanism: GESAMP

29. GESAMP noted that it was the only long-standing inter-agency group providing advice on marine environmental assessment and protection to the United Nations system, supported by eight United Nations bodies and with extensive experience in assessment of the marine environment which was central to its mission and functions. GESAMP was thus ideally positioned to play a significant role in the GMA process.

30. GESAMP recognized that credibility, salience and legitimacy were essential characteristics of effective assessments, and had drafted a Strategic Plan to restructure its membership, working practices and activities with a view to building upon its existing strengths in those areas. Notable elements of the strategy included: (a) the nomination of experts to a GESAMP pool by Governments, regional organizations, scientific bodies and other groups as well as the United Nations sponsoring organizations; (b) mechanisms for those groups to propose and sponsor GESAMP projects; (c) mechanisms for all pool experts to participate in GESAMP activities; (d) regular consultation with users in the design and execution of GESAMP activities; (e) measures to ensure the user-friendliness and visibility of the GESAMP reporting processes; and (f) the separation of scientific and policy advisory processes in an approach paralleling the two-tiered approach described in the report of the Bremen workshop on the GMA.[k] GESAMP agreed with the three-phase approach endorsed at the Bremen meeting.[l] However, it had developed a modified flow chart which, in its view, indicated how it might best participate and also express its suggestions for further developing the process (see annex III: the ovals indicate potential GESAMP contributions).

31. GESAMP considered that it was particularly well suited for a leadership role in the global scientific panel for the GMA. In its view, the panel should focus on designing the scientific aspects of the GMA in phase I. To that end, it was essential that the global process begin with broad stakeholders consultations, including the participation of scientists involved in phase II regional and national assessments, to help ensure that the questions addressed by the GMA and the indicators used were relevant at regional as well as national levels and that the expectations of the global assessment design were realistic. In phase III the global scientific panel would synthesize the regional scientific assessments to produce a global scientific assessment. The regional policy reviews should, along with the global scientific assessment, feed into the global policy review rather than the global scientific assessment.

32. GESAMP could draw upon its pool of experts not only for the global scientific panel, but also for specialist expertise in specific sectoral and technical issues. It continued to advise the United Nations system on such issues, with several working groups currently active. That ability to provide in-depth thematic assessments should be useful to the GMA process. GESAMP understood that the role of the global scientific panel would be embedded in a broader process. In addition to a potential leadership role in the global scientific panel in phases I and III, GESAMP was of the view that it should also be involved at other levels of the GMA to ensure the necessary linkage to the process as a whole.

33. Its expertise, however, was not well suited to a leading role in phase II: regional assessments, capacity-building or policy analysis. For those components a

supporting role of providing information, clarification, advice and other inputs as requested would be more appropriate. In such a role GESAMP would seek cooperation with other mechanisms. In phase II regional assessments, for example, GESAMP would see itself cooperating in a supporting role with mechanisms such as the Global International Waters Assessment (GIWA), the Global Environment Outlook (GEO), the Millennium Ecosystem Assessment (MA), sectoral and regional seas organizations, as well as other bodies and mechanisms having expertise in regional assessments.

34. Based upon its prior experience with global assessments, GESAMP was of the view that the GMA would inevitably reveal inconsistencies, gaps and other shortcomings of regional assessments *for the purposes of global assessment*, but it regarded a regular process such as the GMA as the best way to solve those problems. One of its most important features was its regular or cyclical nature. It would be essential for the GMA to include a new feature of continuous process review to provide feedback loops between and within the regional and global levels at each turn of the cycle. That would be the most important element of the GMA process for building national, regional and global capacity for improved ocean governance. GESAMP could provide input to the process review, along with other partners in the GMA.

35. GESAMP suggested an approximately five-year periodicity for the full GMA cycle. The scientific assessment component of each cycle, that is, the part of the process leading from global design to global assessment (see annex III), would ideally take two years but likely require about three years for the first cycle. Other components of the GMA process, including process review, direct capacity-building and supporting thematic assessments as required, should occur continuously.

36. The GMA would clearly require the Global Coordinating Mechanism illustrated in annex IX to the Bremen workshop report.[m] GESAMP suggested that United Nations bodies with responsibilities related to the marine environment perform this role through appropriate existing inter-agency cooperation. GESAMP did not consider this a suitable role for itself, but considered it essential that its scientific role be closely linked to the Global Coordinating Mechanism. The GESAMP sponsoring organizations were already taking concrete steps to establish a central GESAMP office as called for in the draft Strategic Plan. That office could provide a suitable existing mechanism both for supporting the scientific role of GESAMP in the GMA and for linking the science components with the broader Global Coordinating Mechanism.

E. Convention secretariats[n]

1. Convention on Biological Diversity

37. The secretariat for the Convention on Biological Diversity expressed its support for the GMA. Like other respondents, the Biodiversity Convention wanted to highlight the necessity for creating *synergies* with other relevant ongoing assessments such as GIWA and the MA. In order to meet the assessment needs of the Convention, the GMA should assess biological diversity on the level of *ecosystems, species and genes*. A regularly repeated assessment could also provide valuable information about progress made in achieving the target of significantly reducing biodiversity loss by the year 2010, as specified in the Strategic Plan for the

Convention" and the Johannesburg Plan of Implementation. This information could then be presented in various reporting formats targeted to meet the specific needs of different categories of audiences at the national, regional and global levels.

38. Measuring progress might best be done through an *indicator-based approach*, which could form at least a part of the GMA. In that regard, linkages could be made with the Secretariat's current work on indicators. With those components integrated into the assessment, the GMA could provide the secretariat with important information on the effects of the implementation of the Convention's programme of work on marine and coastal biological diversity.

2. London Convention 1972 (IMO)

39. The London Convention affirmed its support for the GMA process by noting that, as a mature Convention, it had substantial information to offer in the form of guidelines, assessment and monitoring reports, etc., that could be compiled and provided to any established GMA coordinating mechanism. In its working paper on the GMA,[F] the Convention secretariat noted that of the 188 assessments examined in the UNEP-WCMC survey, the only IMO activity included was the GloBallast programme. In view of the purpose of the GMA and the existing thematic and geographic gaps, the London Convention identified its potential contribution through the review of its "Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping" using the UNEP-WCMC criteria: geography, regularity, cost-effectiveness, legitimacy, credibility, sustainability and saliency.

3. The Ramsar Convention on Wetlands

40. The Ramsar secretariat endorsed the establishment of the GMA, stressing the importance of assisting parties in assessing and reporting on the status and trends of oceans and coastal areas, in particular in coastal marine wetlands. The Ramsar Convention defined such areas as including permanent shallow marine waters; coral reefs; rocky marine shores; estuarine waters; coastal freshwater lagoons, subterranean hydrological systems, etc. The secretariat was of the view that the use of simple Geographic Information Systems should be encouraged to compare historical data on loss, fragmentation, restoration of habitats, etc.

41. The Ramsar secretariat strongly suggested that for the GMA to realistically achieve its objectives, it had to identify an initial selection of key indicators that would be easy and not too costly to monitor at the national and regional levels. Such indicators would have to be agreed upon by States and organizations so that trends could also be measurable. As for its contribution to the GMA process, the Ramsar Bureau noted that it could provide analysis of changes in ecological character according to the information provided by the parties to the Convention as well as ecological and socio-economic information about all Ramsar sites available in the Ramsar database.

42. Of particular importance is Ramsar's offering of its network of scientists through its Scientific and Technical Review Panel, composed of representatives of all geographical regions with a variety of areas of expertise. The panel was currently producing a set of indicators for marine and coastal wetlands, to be circulated for broader consultation. In that connection, Ramsar was of the view that cooperation and exchange of views between the Ramsar Scientific and Technical Review Panel and GESAMP should be explored. The Ramsar Bureau affirmed its endorsement of

a new GESAMP and offered to become an active partner within its financial limitations.

43. Finally, with regard to capacity-building, Ramsar offered to seek to include some training and information about the GMA process in all its training exercises or to allow its partner organizations such as the World Conservation Union, the World Wildlife Fund, BirdLife and Wetlands International to use their own opportunities to provide training.

F. Global intergovernmental organizations outside the United Nations system[1]

Organization for Economic Cooperation and Development (OECD)

44. OECD explained that it was carrying out performance assessments to evaluate member countries' environmental performance with regard to a range of marine issues (protection of the marine environment from pollution, management of living marine resources, etc.). In doing so, it was building on existing regional assessments (e.g., data from port State control authorities, regional fisheries management organizations, regional seas programmes) as well as data available from its member countries. These evaluations systematically considered environmental, economic and social aspects of the issues (inter alia, contribution to the gross domestic product, to employment, to regional development). OECD pointed to fisheries as a key socio-economic activity of many coastal communities, in particular of developing countries. Since fisheries relied heavily on the state of the marine environment, a global reporting system that would also include socio-economic aspects would be welcome. Many OECD members did not have data-gathering systems that were sufficiently comprehensive and detailed to cover socio-economic aspects of their fisheries sector. A first step would be to ensure sufficient *capacity-building* in both developed and developing countries on socio-economic data reporting, to be commenced by agreeing to *common standards* and data for reporting purposes. The work of FAO and OECD through their participation in the coordinating Working Party on Fisheries Statistics should be taken into account.

G. Regional intergovernmental organizations[1]

1. European Union

45. The European Union reaffirmed, at the World Summit on Sustainable Development, as well as in subscribing to the provisions of General Assembly resolution 57/141, it had accepted a commitment to a regular process for the global reporting and assessment of the state of the marine environment under the United Nations, building on existing regional assessments. Moreover, in the 2002 European Commission communication to the Council and Parliament entitled "Towards a strategy to protect and conserve the marine environment", the Commission had undertaken to "play an active role in a process recently started by UNEP aimed at establishing a regular process for assessing the state of the marine environment at a global scale".[2] The European Union gave its support to the GMA process, as it was very much committed to integrating environmental issues in all its relevant policies, in line with the conclusions of the Presidency of the European Council of 20-21 March 2003.

46. The European Union was of the view that UNEP should have a leading role in this process, in cooperation with other relevant organizations both within and outside the United Nations system. It pointed out the monitoring and assessment work of UNEP, inter alia, on regional seas programmes and other regional seas agreements, was clearly one of its strengths. The Union insisted that new structures should not be created where they already existed, and that involvement of the relevant regional and subregional stakeholders was essential. In that context, the European Commission was developing its own integrated process of assessment of the marine environment to assist the European Union Marine Strategy.

2. European Environment Agency (EEA)

47. EEA noted that it had participated in the initial stages of the GMA discussions at the Bremen meeting, where it had highlighted the different options for assessments, ranging from large-volume, detailed scientific analyses to short and broadly understandable summary reports. The Agency emphasized that data availability and technical capacity varied widely from region to region. However, in Europe, ample data were available and the possibilities for supporting a regular process for reporting on the marine environment were quite good. In particular, EEA was developing in cooperation with regional fisheries organizations a core set of environmental indicators covering environmental and socio-economic aspects related to fisheries. It offered all its data collection and assessment work for use within the GMA process. It pointed to the recent State of the Environment Reports (SoERs) on Europe's environment, which covered the marine environment and ecosystems.[t]

48. EEA suggested that the GMA should aim at assessments every five years with changing thematic focus, but with global coverage. The Agency could be relied upon for good and harmonized data as opposed to ad hoc research data, but, only with regard to coastal regions. For the open ocean waters and the deep sea-environment, GESAMP might constitute the best body for such assessment, along with other scientific organizations.

3. Baltic 21

49. In its contribution, Baltic 21 pointed out that it was carrying out comprehensive reporting and assessment activities regarding sustainable development in the Baltic Sea region. To avoid duplication of effort, those activities were partly based on work being done in other international forums, including, several members of Baltic 21 itself. Prominent among the latter were the Helsinki Commission and the International Baltic Sea Fisheries Commission, specialized intergovernmental organizations operating in the Baltic Sea region and dealing with the marine environment.

H. Regional Fisheries Organizations[u]

1. Inter-American Tropical Tuna Commission (IATTC)

50. The Commission noted that, with regard to fish stocks, FAO and the regional fisheries bodies were in the process of establishing the Fisheries Resources Monitoring System (FIRMS), which would provide a comprehensive report on the state of fish stocks. IATTC, therefore believed that FIRMS should form the basis for

global reporting on fish stocks. Since other regional fisheries management organizations collected similar information, the modality for reporting information not included in FIRMS might be through direct contact with those organizations.

2. North Pacific Anadromous Fisheries Commission (NPAFC)

51. NPAFC recalled that its objective was to promote the conservation of anadromous stocks (Pacific salmon) in the high seas of the North Pacific Ocean, under the Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean. As such, the Commission conducted assessments of the state of Pacific salmon, which could in turn be contributed to the GMA.

I. Non-governmental organizations

1. The Census of Marine Life

52. The Census of Marine Life had recognized the need for and feasibility of a global accounting of ocean life in 1997. It had participated in the Reykjavik and Bremen meetings and was the Biology Editor for the United Nations Atlas of the Oceans. The goal of the Census was a comprehensive and accessible census of ocean biodiversity by 2010. The Census suggested that its report and the techniques used to produce it could serve as a baseline and model for future assessments and that its Ocean Biogeographic Information System would be a continuing legacy. The Census wanted to maximize the value of its ongoing programme by assisting with future assessments of the state of the marine environment.

2. International Ocean Institute (IOI)

53. IOI suggested that it could produce the GMA reports for the General Assembly and the DOALOS at a reduced cost and with a degree of independence, as the reports would contain a wide range of information and opinions and would be difficult for the United Nations to produce, given its current constraints. In its proposal, IOI would liaise with key agencies and selected experts to develop a work plan and themes and propose budgets and a funding mechanism.

3. Reef Check

54. Reef Check noted that it is the primary partner of both the Global Coral Reef Monitoring Network and the International Coral Reef Initiative and is the only global standard for coral reef monitoring. Its data are freely available to partners. Reef Check is in the process of creating a web-based expert advisory system enabling teams to receive instant feedback on the results of their surveys. It has a long history of collaborating closely with UNEP and the United Nations Development Programme in coral reef monitoring and training as well as in science-based management. Reef Check highlighted its most recent report, entitled "*The Global Coral Reef Crisis — Trends and Solution: 1997-2001*", based on five years of data collection.[v]

4. World Conservation Union (IUCN)

55. IUCN stressed that the GMA plan should encompass the full scope as defined at the Reykjavik workshop, that is, that it cover marine and coastal ecosystems and associated estuaries, including inputs from watershed and atmospheric deposition. IUCN favoured the utilization of a broad ecosystem approach and the precautionary approach. As to specific modalities, IUCN agreed that a global design should be the first step for the GMA. It was important that the scientific reviews be clearly distinguished from broader assessments focused on policy implications and the formulation of policy recommendations. The inclusion of assessments of the socio-economic aspects of the state of the marine environment should be made explicit in the scope and modalities of any GMA plan. Thus, the plan could specify that the regional reports include socio-economic data and information related to the deteriorating marine environmental conditions and their implications for regional well-being, elements of which could be suggested in the global design. A further elaboration of the GMA process would consist of a synthesis of regional assessments of the effectiveness of the technical and policy responses that have been applied. IUCN pointed out that the improvement of capacity at the national and regional levels was critical to an effective GMA. It believed that the GMA global/regional feedback process, the strengthening of networks among experts and stakeholders at the regional and global levels and the reports the process would produce would have a positive effect on building capacity at both national and regional levels. However, it was vital that financing be available to support participation by experts from developing countries, especially in the global stages of the assessment process; such participation should include specialized working groups. The Union supported the idea of broad participation and partnerships in the GMA. In conclusion, IUCN drew attention to the fact that the wide range of individuals, institutes and organizations involved in data collection and assessment posed a challenge to integration in support of the GMA process. The new GESAMP could serve as the inter-agency cornerstone and coordinating mechanism for the scientific assessment, forming one element of a new central mechanism to coordinate the broader assessment and policy-oriented report.

Notes

[a] GESAMP Reports and Studies No. 70, 2001.

[b] See *Official Records of the General Assembly, Fifty-eighth Session, Supplement No. 25* (A/58/25), annex.

[c] See ibid., *Fifty-sixth Session, Supplement No. 25* (A/56/25), annex.

[d] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 2, annex.

[e] See the UNEP web site on the GMA: www.unep.org/DEWA/water/MarineAssessment.

[f] See *Official Records of the General Assembly, Fifty-eighth Session, Supplement No. 25* (A/58/25), annex.

[g] The World Bank expressed interest but had no proposals to make on the GMA modalities.

[h] GESAMP has published five major reports related to state of the marine environment: "Review of the Health of the Oceans", Reports and Studies, No. 15, 1982; "The State of the Marine Environment", Reports and Studies, No. 39, 1990; "Guidelines for Environmental Assessment",

Reports and Studies, No. 54, 1994; "A Sea of Troubles", Reports and Studies, No. 70, 2001; and "Protecting the Oceans from Land-Based Sources and Activities Affecting the Quality and Uses of the Marine, Coastal and Associated Freshwater Environment", Reports and Studies, No. 71, 2001.

[i] For further details on the IMO contribution, see the reply from the London Convention (1972), sect. II.E, para. 39.

[j] IOC Assembly resolution XXII-2.

[k] UNEP, Proceedings of a Technical Workshop for establishing a regular process for the global assessment of the marine environment, Bremen, Germany, 18-20 March 2002, annex IX; "The GMA process — an emerging model suggested by national governments, institutions and organizations", UNEP/GC.22/2/Add.5, para. 57.

[l] See UNEP/GC.22/2/Add.5.

[m] Ibid.

[n] The secretariat of the United Nations Convention to Combat Desertification suggested in its contribution that its experience with regard to matters of reporting and communication information could be useful for the GMA reporting exercise.

[o] Decision VI/26, annex, adopted by the Conference of the Parties at its Sixth Ordinary Meeting (April 2002).

[p] "Possible contribution of the London Convention to the GMA process", LC/SG 26/WP.3.

[q] The African, Caribbean and Pacific Group of States, the International Agency for the Development of Environmental Information and the Commonwealth Secretariat expressed interest but had no proposals to make on GMA modalities.

[r] The Council of Europe expressed interest in the GMA but explained that regular assessment activities fell under the European Environment Agency.

[s] Commission of the European Communications document COM (2002) 539, action 23, para. 84.

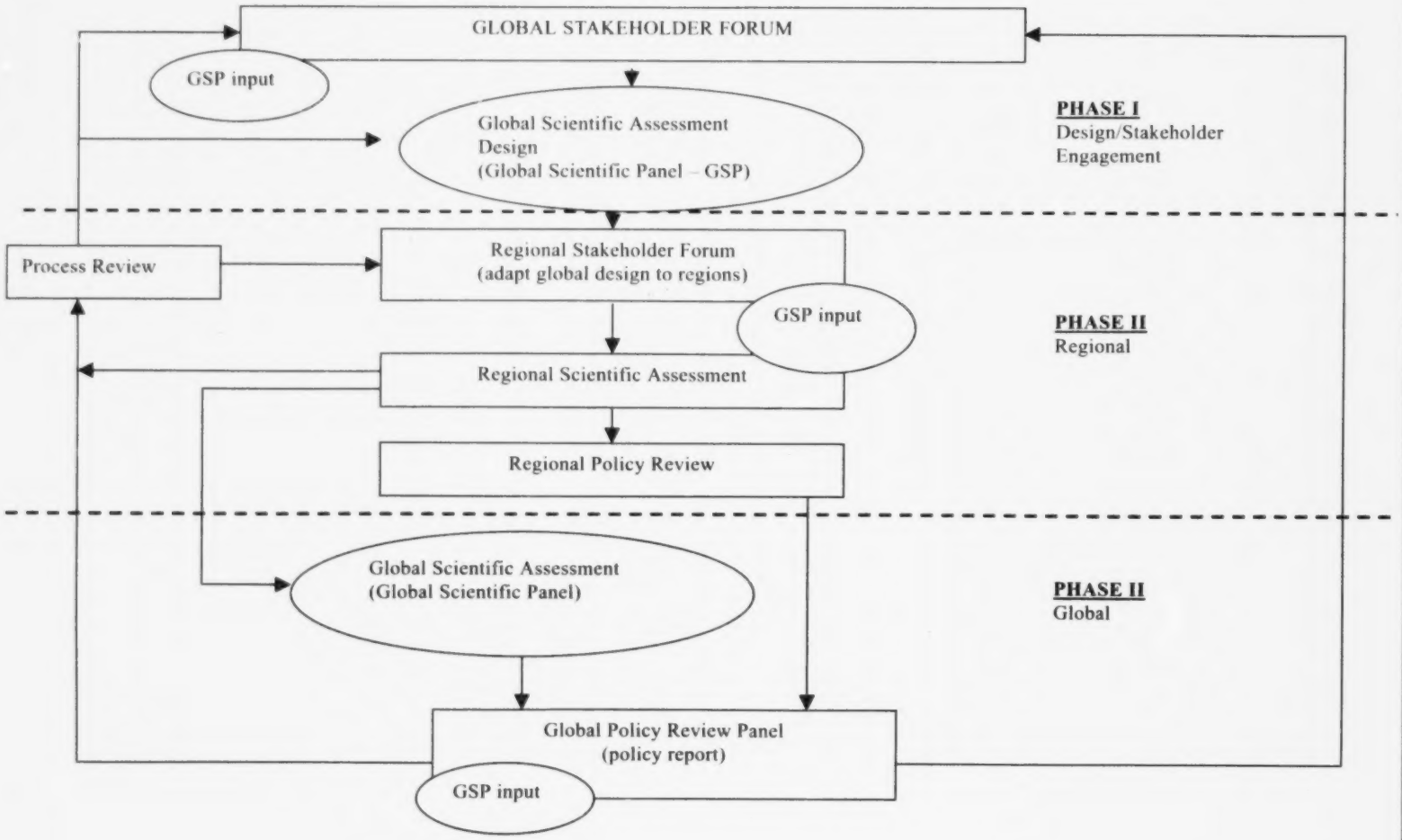
[t] The next SoER will be issued in 2005 and will be made available on the EEA web site; for coasts and seas: http://themes.eea.eu.int/Specific_areas/coast_sea/reports; for fisheries: http://themes.eea.eu.int/Sectors_and_activities/fishery/reports/indicators.

[u] The Commission for the Conservation of Southern Bluefin Tuna, the International Whaling Commission and the North-East Atlantic Fisheries Commission had no proposals to make on modalities for the GMA.

[v] The executive summary of the report is available at the web site of Reef Check at www.reefcheck.org/reexecsumm.pdf.

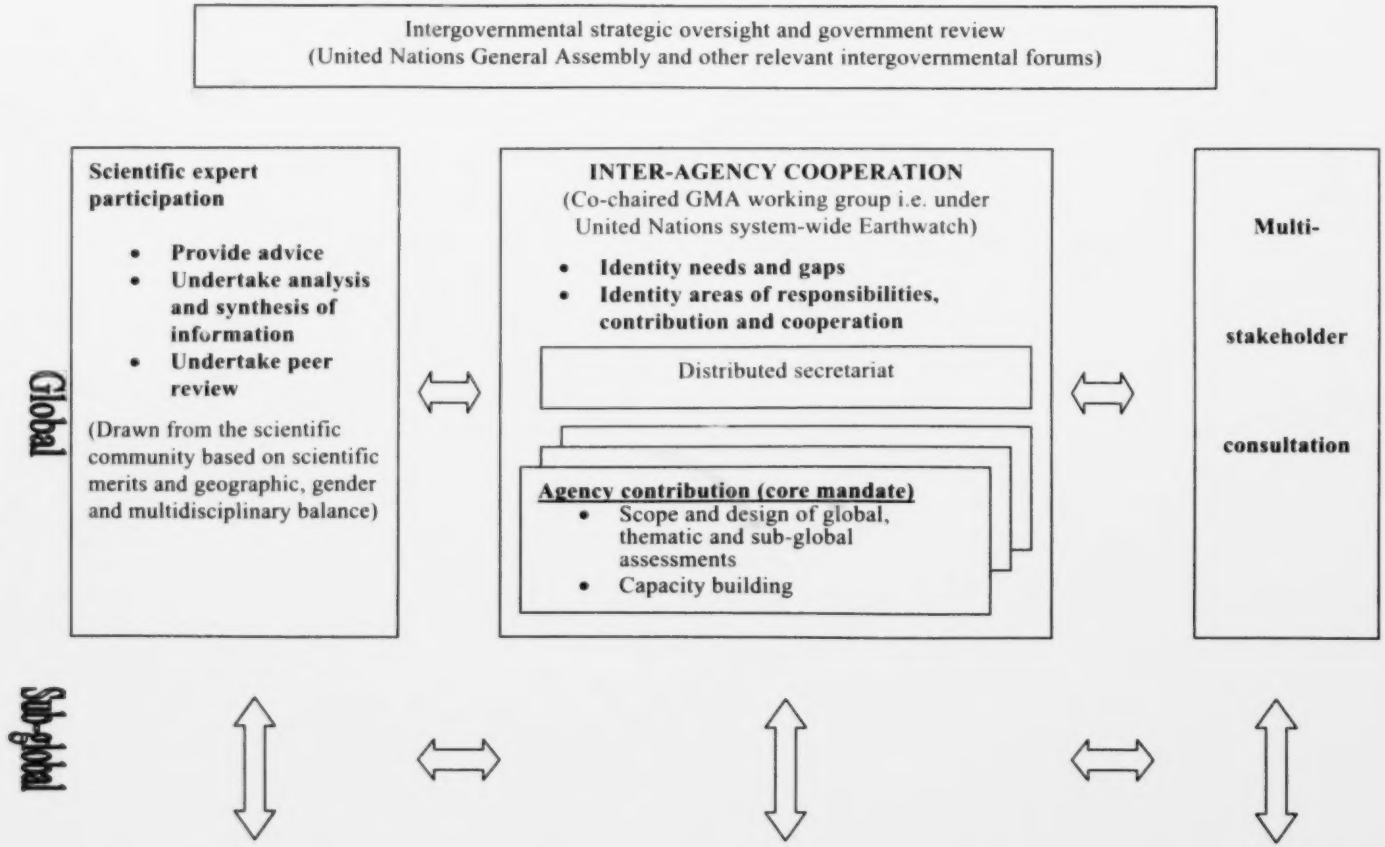
Annex III

GESAMP proposal for a GMA process



Annex IV

The UNEP GMA Modular Partnership Approach


Intergovernmental strategic oversight and government review
(United Nations General Assembly and other relevant intergovernmental forums)
Scientific expert participation
Provide advice
Undertake analysis and synthesis of information
Undertake peer review
(Drawn from the scientific community based on scientific merits and geographic, gender and multidisciplinary balance)
INTER-AGENCY COOPERATION
(Co-chaired GMA working group i.e. under United Nations system-wide Earthwatch)
Identity needs and gaps
Identity areas of responsibilities, contribution and cooperation
Distributed secretariat
Agency contribution (core mandate)
Scope and design of global, thematic and sub-global assessments
Capacity building
Multi-
stakeholder
consultation
Global
Sub-global